

The 27th
Annual Meeting of the Japanese Society
of Oral Pathology

第27回 総会・学術大会 日本臨床口腔病理学会

口腔病理の新潮流

— 頭頸部腫瘍WHO国際分類の改訂をふまえて —

A New Trend of Oral Pathology

— Based on the Revised Edition of WHO Classification of Head and Neck Tumours —

大会長

広島大学大学院医歯薬保健学研究院 口腔顎顔面病理病態学研究室

教授 高田 隆

Chair of Local Organizing Committee

Prof. TAKASHI TAKATA

平成28年8月10日(水)～8月12日(金)

August 10-12, 2016. Hiroshima, Japan

広島大学 広仁会館

Koujin-Hall, Hiroshima University

プログラム・抄録集

本大会は一部の経費に広島大学の研究力強化促進事業からの補助を受けています。

This conference (symposium) is partly subsidized by Hiroshima University under the "Program for Promoting the Enhancement of Research Universities."

医薬部外品 液体歯磨き

※ 歯周病予防のためのモンダミン

※歯周病は、歯周炎、歯肉炎の総称です。

歯科医院専売

モンダミン

高い殺菌作用で、 口腔内と歯垢に潜む 細菌の増殖を抑える！



歯科医院専売モンダミン プロケア 600mL

オーラルケアは 毎日継続することが重要です

歯科医院専売モンダミンは、ノンアルコールタイプで刺激が少なく、マイルドな爽快感。歯周病※予防の効果に加え、毎日続けられる工夫がされています。※歯周病は、歯周炎、歯肉炎の総称です。

【効果・効能】

歯周炎の予防。歯肉炎の予防。出血を防ぐ。むし歯の発生及び進行の予防。歯を白くする。口臭の防止。口中を浄化する。口中を爽快にする。

歯ぐきからの
出血を防ぐ
TXA※1

※1:トランスキサム酸

歯ぐきのハレと
炎症を防ぐ
GK₂※2

※2:グリチルリチン酸ジカリウム

口腔内の
原因菌を殺菌
CPC※3

※3:塩化セチルピリジニウム



1000mL



専用ポンプ



1リットルサイズ専用ポンプを使えば、
簡単・衛生的にご使用いただけます。

※モンダミン・プロケアは歯科医院専売のため、一般の店舗での取り扱いはありません。ご購入の際は、最寄りの歯科医院へお問い合わせください。

アース製薬株式会社 〒101-0048 東京都千代田区神田司町2-12-1

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ごあいさつ

第27回 日本臨床口腔病理学会総会・学術大会

大会長 高田 隆

広島大学大学院医歯薬保健学研究院

口腔顎顔面病理病態学研究室 教授

The 27th Annual Meeting of the Japanese Society of Oral Pathology

President **TAKASHI TAKATA**

Professor

Department of Oral and Maxillofacial Pathobiology,

Basic Life Science, Institute of Biomedical and Health Sciences, Hiroshima University



第27回NPO法人日本臨床口腔病理学会総会・学術大会を2016年8月10-12日に広島大学で開催いたします。本大会を広島大学大学院医歯薬保健学研究院口腔顎顔面病理病態学研究室が担当させていただきますことにつきまして、会員の皆様に深く感謝申し上げますとともに、ご協力をよろしくお願い申し上げます。

さて、本大会では大会テーマを「口腔病理の新潮流」とさせていただきました。会員の皆様方から先端研究のご成果を発表いただくとともに、現在改訂作業が進められております頭頸部腫瘍の新WHO国際分類に関する国際セッションを開催し、改定に関わった英国Sheffield大学のPaul Speight教授、米国Baylor大学のJohn Wright教授、英国Guy's HospitalのEdward Odell教授など欧米各国の専門家から、口腔癌や歯原性腫瘍に関わる最新情報を直接聞いていただければと思います。また、同時に科学研究費（B）（海外学術調査）「WHO国際分類改訂に向けたアジアにおける歯原性腫瘍の戦略的大規模調査」に関わっているアジア各国の口腔病理医にも多数参加していただき、会員の皆様と共に歯原性腫瘍に関する集中的な症例検討を行っていただくセッションも企画いたしました。

さらに、特別講演としまして、胃癌の分子病理学研究において世界をリードされている広島大学大学院医歯薬保健学研究院の安井 弥教授に、「がんの新規診断治療開発に関する分子病理学」と題して、今後の病理学の方向性を示唆するお話をさせていただきますとともに、ノーベル賞の対象技術にも上がり、近年の医学生物学的研究に欠くことのできないゲノム編集に関する世界の動きについて、この分野の第一人者で日本ゲノム編集学会会長である広島大学理学研究科の山本 卓教授にお話をさせていただきます。

また、昼食時間を利用して、広島大学の栗原英見教授に「*Porphyromonas gingivalis* に対する血中抗体価検査の臨床的有用性」（共催：サンスター株式会社）についてご講演いただくとともに、東京医科大学の長尾俊孝教授に「“新” WHO分類に基づいた唾液腺腫瘍の病理診断法」についてご講演いただきます。

大会期間中には、企画委員会主催のセッションとして、口腔癌診断基準検討委員会による「口腔癌診断の均霑化を目指して」の報告や教育委員会の主催の教育スライドセミナー（剖検報告書の作成、細胞診、唾液腺腫瘍の診断病理）などの学会主導型プログラムも多数企画されております。

大会開催時の広島は大変暑く、お盆休暇直前のお忙しい時期の開催で大変ご迷惑をおかけしますが、広島にとって8月は特別な意味があります。是非この機会に広島にお出かけくださり、平和の大切さに触れていただくとともに、学会の前後には日本三景安芸の宮島はもとより、坂と文学と猫のまち尾道、海軍のまち呉、マッサンの故郷竹原などにも足を伸ばしていただければと思います。ご参加くださる皆様方に有意義な時間をお過ごしいただけますよう、研究室一同準備を進めてまいります。一人でも多くの皆様のご参加を賜りますようお願い申し上げます。

Greeting

Dear friends and colleagues,

It gives me immense pleasure to announce that the 27th annual meeting of Japanese Society of Oral Pathology will be hosted by Hiroshima University, Hiroshima on 10-12 August, 2016. We, the department members of Oral and Maxillofacial Pathobiology, Institute of Biomedical and Health Sciences, Hiroshima University, are deeply honored to have given charge of the local organizing committee, and we would like to invite you to be a part of this meeting to make it a grand success.

The main theme of this meeting will be; “New Trends of Oral Pathology” - based on revised edition of WHO Classification of Head and Neck Tumors in 2017. In addition to various presentations on advanced research, we will have an international session of new classification of Head and Neck tumors. Here, we will invite Professor Paul Speight (Sheffield University, UK), Professor John Wright (Baylor University, USA) and Professor Edward Odell (Guy's Hospital, UK), who have contributed to new revision of WHO odontogenic tumor classification. I am very happy that you would be able to get the latest information about oral cancers and odontogenic tumors directly from these eminent speakers. We will also invite representative oral pathologists from Asian countries, who have kindly contributed to Grants-in-Aid for scientific research expenses (b: overseas academic research) entitled “Large-scale collaborative survey on odontogenic tumors in Asia” and have prepared special session of cases/slides seminar of Odontogenic Tumors. Please enjoy active discussion with them.

Moreover, we will have two special lectures. One is entitled “Molecular pathological approach to develop novel cancer diagnostics and therapeutics”, which indicates the direction of recent pathological research by Professor Wataru Yasui, (Institute of Biomedical and Health Sciences, Hiroshima University) who is a leading researcher of molecular pathology of gastric cancer in the world. The other one is a lecture regarding “World trend of Genome editing” by Professor Takashi Yamamoto (Graduate School of Science, Hiroshima University), a leading authority in this field and President of The Japanese Society for Genome Editing.

At lunch time during the meeting, we will have special lectures; “New Clinical Value of Measurement of Antibody Level against *Porphyromonas gingivalis*” by Professor Hidemi Kurihara (Institute of Biomedical and Health Sciences, Hiroshima University, President-elect of Japanese Society of Periodontology) and “Diagnostic Clues in Salivary Gland Tumor Pathology Based on “New” WHO Classification” by Professor Toshitaka Nagao (Graduate School of Medicine, Tokyo Medical University).

Furthermore, this conference includes session organized by JSOP planning committee; report from the committee of “Diagnostic Criteria of Oral Cancer - towards the standardization of oral cancer diagnosis: and three educative slide seminars namely; “How to make autopsy report”, “Cytology” and “Pathological diagnosis of salivary gland tumors”.

During the conference period, the weather in Hiroshima will be quite hot and probably a busy season just before the “Obon-Festival” in Japan. However, the month of August holds a special importance to the people of Hiroshima and also Japan as 6th August commemorates the 71th anniversary of the Hiroshima A-bombing. Please join the 27th JSOP meeting in Hiroshima and feel the importance of world peace and brotherhood. I also recommend you to visit Itsukushimashrine at Miyajima for the famous Tori, one of three most scenic spots in Japan; Onomichi, known for sloping roads, literatures and lucky cats; Kure, historical city for world war II naval port and Yamato museum; and Takehara, Massan's home town (Massan is founder of NIKKA whisky) and so on.

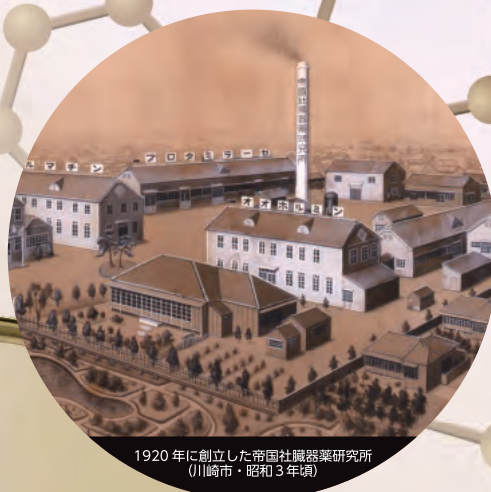
We once again welcome you all to be a part of this conference and for a memorable time. Looking forward to seeing you all here in Hiroshima.



戦後の注射薬
製造風景



やまはち
創業者・山口八十八



1920年に創立した帝国社臓器薬研究所
(川崎市・昭和3年頃)

LIFE with ASKA

私たちあすか製薬は
1920年に帝国社臓器薬研究所の創立当時から
伝統に培われた創薬技術を活かし
人々の健康に向き合ってきました

2020年の創立100周年に向けて
今後も価値ある医薬品の創製を目指します



わが国で初めてマーガリンの
製造を開始 (1893年)



創立から現在に至るまで
「ホルモン」に関する
研究開発に取り組む

先端の創薬を通じて人々の健康と明日の医療に貢献する



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日本臨床口腔病理学会総会・学術大会の記録・予定

List of Annual Meeting of JSOP

回	年	会 期	主催校	開催地	大会長
1	1990	7/4,5	第5回国際口腔病理学会と共催	東 京	石木 哲夫
2	1991	8/22,23	愛知学院大学	名古屋	亀山洋一郎
3	1992	8/27,28	明海大学	東 京	内海 順夫
4	1993	8/26,27	福岡歯科大学	福 岡	北村 勝也
5	1994	8/4,5	昭和大学	東 京	吉木 周作
6	1995	8/29,30	北海道大学	札 幌	雨宮 璋
7	1996	8/22,23	松本歯科大学	塩 尻	枝 重夫
8	1997	8/21,22	長崎大学	長 崎	岡邊 治男
9	1998	9/11,12	広島大学	広 島	二階 宏昌
10	1999	8/26,27	日本大学松戸歯学部	松 戸	山本 浩嗣
11	2000	8/25,26	鶴見大学	横 浜	菅原 信一
12	2001	8/23,24	鹿児島大学	鹿児島	北野 元生
13	2002	8/23,24	東京医科歯科大学	東 京	高木 実
14	2003	8/21-23	大阪大学	淡路島	伊集院直邦
15	2004	8/5-7	日本大学	東 京	茂呂 周
16	2005	8/24-26	岩手医科大学	盛 岡	佐藤 方信
17	2006	8/17-19	日本歯科大学新潟生命歯学部	新 潟	片桐 正隆
18	2007	8/9-11	朝日大学歯学部	岐 阜	竹内 宏
19	2008	8/20-22	東京歯科大学	東 京	下野 正基
20	2009	7/29-31	北海道医療大学	札 幌	賀来 亨
21	2010	7/30-8/1	大阪歯科大学	枚 方	田中 昭男
22	2011	8/23-25	福岡歯科大学	福 岡	谷口 邦久
23	2012	8/29-31	東京医科歯科大学	東 京	山口 朗
24	2013	8/28-30	日本大学歯学部	東 京	小宮山一雄
25	2014	8/27-29	新潟大学	新 潟	朔 敬
26	2015	7/29-31	北海道大学	札 幌	進藤 正信
27	2016	8/10-12	広島大学	広 島	高田 隆
28	2017	8/23-25	明海大学	川 越	草間 薫

ご案内とお願い *Information*

1. 受付 Registration

8月11日(木) 8:15～

8月12日(金) 8:30～

広島大学広仁会館1Fロビーにて受付を行います。

クロークは受付横に設置します。

当日参加される方は、当日受付にて参加費10,000円、懇親会費7,000円(希望者のみ)をお支払いください。
その際に、演題プログラムの小冊子とネームカードをお受け取りください。

【ご注意】

- ・ネームカード(参加証)を着用していない方の入場はお断りいたします。
- ・ランチョン講演のお弁当の整理券を受付で配布します。講演の際は、受付でお弁当をお受け取りください。但し人数に限りがありますのでご了承ください。

On-site registration

Registration desk in the lobby on the 1st floor, Koujin- Hall, Hiroshima University

Thursday, 11th August 8:15 ~

Friday, 12th August 8:30 ~

Please bring the printed confirmation form to registration desk for overseas participants.

You will pay preregistration fee of JPN 8,000.

The participant who has the confirmation form after preregistration period or who does not have confirmation form should pay on-site registration fee of JPN 10,000. (Reception Fee: JPN 7,000)

At on-site registration desk, you will receive a small program booklet and name-plate.

Note:

- ・Please note that we will refuse to accept a person who does not wear the name plate.
- ・We will deliver numbered tickets for luncheon lecture at registration desk. Before starting the lecture, please trade the ticket for lunch box and tea at registration desk.

2. 会場 Meeting Place

広島大学広仁会館

〒734-8553 広島市南区霞 1-2-3 TEL: 082-257-5098

Koujin-Hall, Hiroshima University

1-2-3 Kasumi, Minami-ku, Hiroshima JAPAN

Phone +81-82-257-5098

3. 発表される先生方へ Information for presenters

- ・口演スライドならびにポスターは英語での表記としてください。また、口演も可能な限り英語での発表していただき、海外からの参加者と活発な意見交換をしていただければと思います。

The slides and posters must be written and presented in English.

・利益相反に関して

産学連携による研究には、学術的・倫理的責任を果たすことによって得られる成果の社会への還元（公的利益）だけでなく、産学連携に伴い取得する金銭・地位・利権など（私的利益）が発生する場合があります。これら2つの利益が研究者個人の中に生じる状態を利益相反（Conflict of Interest: COI）と呼びます。

日本臨床口腔病理学会では、総会で発表するすべての筆頭演者において、COIの開示を必須とすることといたしました。発表者の先生方は総会発表時に利益相反に関するスライド（以下参照）を発表スライドの2枚目（表題の次のスライド）、ポスターの一番最後に必ず入れてください。

<p>参考例</p> <p>特定非営利活動法人 日本臨床口腔病理学会</p> <p>筆頭発表者名</p> <p>演題発表に関連し、開示すべき利益相反関係にある企業などはありません。</p>	<p>参考例</p> <p>特定非営利活動法人 日本臨床口腔病理学会</p> <p>筆頭発表者名</p> <p>演題発表に関連し、開示すべき利益相反関係にある企業などとして、</p> <p>①顧問： ②株保有・利益： ③特許使用料： ④講演料： ⑤原稿料： ⑥受託研究・共同研究費： ⑦奨学寄附金： ⑧寄附講座所属： ⑨贈答品などの報酬：</p>
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・Conflicts of Interest

Research carried out in collaboration with industry may not only benefit society at large (public interest) by means of the results obtained from fulfilling academic and ethical responsibilities; benefits such as money, status, and rights (private interests) may also arise as a result of industrial collaboration. A situation in which these two interests both arise in an individual researcher is known as a conflict of interest (COI).

The Japanese Society of Oral Pathology requires that all authors of presentations given at the Annual Meeting disclose any conflicts of interest they may have.

All presenters are requested to include a slide on conflicts of interest (see example below) as the second of their presentation slides (immediately following the title page), or to include it at the bottom in the case of a poster presentation.

Sample: No conflicts of interest to disclose

**The 27th Annual Meeting of
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COI Disclosure**

Name of First Author :

The author has no conflict of interest to disclose with respect to this presentation.

Sample: With conflicts of interest to disclose

**The 27th Annual Meeting of
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COI Disclosure**

Name of First Author :

The author has the conflict of interest to disclose with respect to this presentation.

1. An adviser of interest group
2. Stock ownership or options:
3. Patent royalties/licensing fees:
4. Honoraria (e.g. Lecture fees):
5. Manuscript fees:
6. Trust research/joint research funds:
7. Scholarship fund:
8. Endower department by commercial entity:
9. Travel fees, gifts, and others:

口頭発表者の方へ

1. 発表時間について
 - ・症例検討（口演）発表 5 分 質疑応答 5 分
 - ・発表時間の厳守にご協力ください。
2. 発表はPC発表のみです。
 - ・当日は発表データをお預かりします。PCの持ち込みは原則お断りいたします。
 - ・動画は使用できませんのであらかじめご了承ください。
 - ・またPowerpointの発表者ツールを使用することは出来ませんのでご了承ください。
 - ・Powerpointでスライドを作成する場合、4：3のサイズで作成してください。
3. 発表データについて
 1. 以下のPCをご利用いただけます。
Windows OS Windows 7, ソフト：Microsoft Office PowerPoint 2013
 2. USBフラッシュメモリーに保存し、他のPC（Windows）での動作確認後、お持ちください。
 3. 保存ファイル名は発表者の「演題番号 氏名.pptx」としてください。
(例) C01広島太郎.pptx
4. 発表データ受付デスク（PC受付）を会場前に設置いたします。
スライド原稿受付時間は原則として、
 - ・午前発表 8：30～10：00
 - ・午後発表 12：00～13：30 といたします。
 演者の方は、少なくとも発表の1時間前までに発表データをご提出ください。
5. データは発表終了後、事務局が責任をもって消去させていただきます。

For authors of oral presentations

1. Time
 - ・ Five minutes for the presentation and five minutes for the discussion.
 - ・ All speakers are asked to keep to the allocated presentation time.
2. Presentation
 - ・ Only computer presentations will be available for the oral sessions.
 - ・ Please submit your presentation data, you may not bring your own PC.
 - ・ Movie data is not used in this meeting.
 - ・ Rehearsal style of presentation tool in PowerPoint is not used during presentation.
 - ・ The slide size in PowerPoint should be standard (4:3) aspect ratio.
3. Data
 - ・ Windows is the only operating system available for the presentations.
OS: Windows 7
Applications: PowerPoint 2013
 - ・ Please save your data in USB memory device, and deliver it to the PC Center.
 - ・ Please write file names in the following manner: “Abstract number Speaker’s name.pptx”
example) “C01 Hiroshima Taro.pptx”

4. The PC center will be open during the following hours in front of the main hall.
 For the presenters in the morning 8:30~10:00
 For the presenters in the afternoon 12:00~13:30
 Speakers are requested to present their data at least 1 hour prior to their presentation starts.
5. All data saved at the PC center will be completely deleted upon the completion of the meeting.

示説（ポスター）発表者の方へ

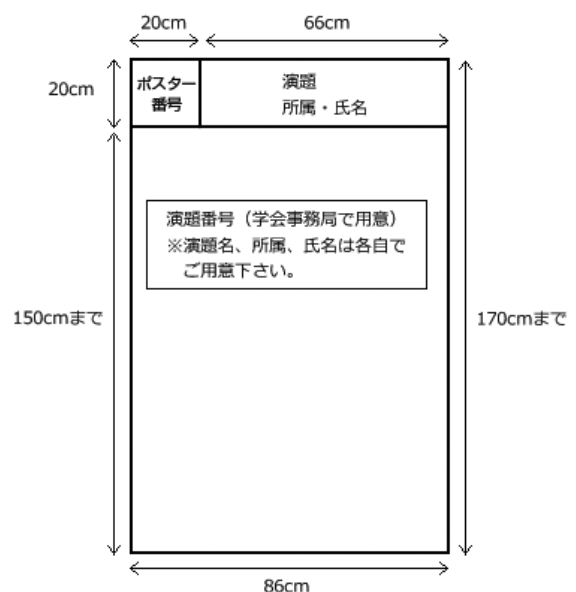
1. 示説発表者の受付はいたしません。発表者は示説会場に設置してある演題パネルに、ポスターを掲示してください。掲示用のピンと発表者用リボンを各パネル前に用意してあります。
2. 学生ポスター賞および一般ポスター賞のポスター貼付・撤去の日程は以下の通りです。
 貼 付 8月11日(木) 9:00~10:30
 示説発表 8月11日(木) 16:30~17:30
 撤 去 8月11日(木) 17:30~17:40
 貼 付 8月12日(金) 9:00~10:30
 示説発表 8月12日(金) 16:00~17:00
 奇数番号のポスターセッション 16:00~16:30 (P01-1, P01-2,...)
 偶数番号のポスターセッション 16:30~17:00 (P02-1, P02-2,...)
 ポスターセッション番号はプログラムでご確認ください。
 撤 去 8月12日(金) 17:00~
3. 一般ポスターの貼付・撤去の日程は以下の通りです。
 貼 付 8月12日(金) 9:00~10:30
 示説発表 8月12日(金) 16:00~17:00
 奇数番号のポスターセッション 16:00~16:30 (P01-1, P01-2,...)
 偶数番号のポスターセッション 16:30~17:00 (P02-1, P02-2,...)
 ポスターセッション番号はプログラムでご確認ください。
 撤 去 8月12日(金) 17:00~

- * 本大会ではポスター賞、学生ポスター賞発表日（8月11日）と一般ポスター発表日（8月12日）が分かれておりますのでご注意ください。
- * 一般ポスターは座長の指示に従い口頭発表をお願いします。
 1 演題7分（発表時間4分、質疑応答3分）です。
- * 学生ポスター賞は審査員の指示に従い口頭発表をお願いします。
 1 演題10分（発表時間6分、質疑応答4分）です。
- * 一般ポスター賞は特に発表時間を設けません、11日 16:30~17:30の討論時間に審査員が随時質問いたします。
- * 会場内、会場周辺でのポスターの廃棄は御遠慮頂きますよう、宜しく御願い致します。

4. ポスターパネルサイズは1演題につき縦200cm、横86cmです。

ポスターは下記のサイズ（縦170cm、横86cm）の範囲で作成してください。

ポスターの左上にポスター発表番号を記載してください。



For authors of poster presentation

1. A ribbon for presenter and clipping tools will be supplied at your poster board.
Make sure that your poster is exhibited at the right place according to your poster number. (Check your poster number.)
2. For applicants of awards category (undergraduate student and general)
The schedule for your poster presentation is as below;

Mounting	Thursday, 11th August	9 : 00 ~ 10 : 30
Presentation	Thursday, 11th August	16 : 30 ~ 17 : 30
Removal	Thursday, 11th August	17 : 30 ~ 17 : 40
3. For general poster presentation
The schedule for your poster presentation is as below;

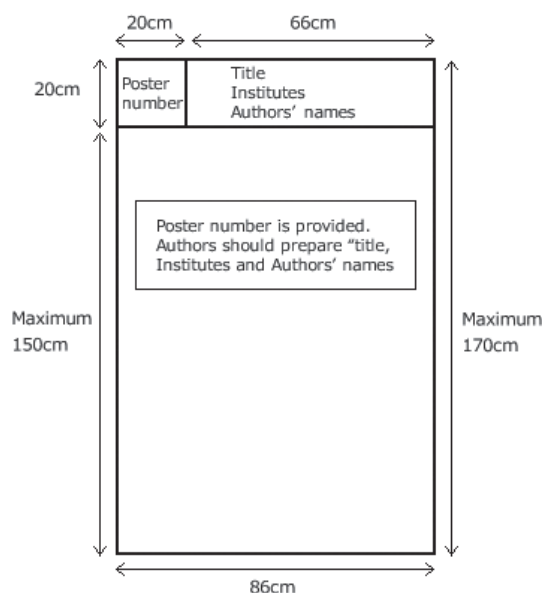
Mounting	Friday, 12th August	9 : 00 ~ 10 : 30
Presentation	Friday, 12th August	16 : 00 ~ 17 : 00
	odd-numbered poster sessions	16 : 00 ~ 16 : 30 (P01-1, P01-2,...)
	even-numbered poster sessions	16 : 30 ~ 17 : 00 (P02-1, P02-2,...)
Removal	Friday, 12th August	17 : 00 ~

 - * In this conference, the dates for presentation of awards and general poster are different.
 - * You should be in front of your poster by scheduled presentation time and start the presentation according to the chairman's direction. You have 7 minutes' presentation time including 3 minutes' discussion time.
 - * Please take care not to discard your poster in and around the venue.

4. Dimensions of the poster board are 200 cm high and 86 cm wide.

Tips for making poster as below;

(also put your poster number in the top left corner of your printed poster)



4. 座長の先生へ Information for chairs

- 1) 口頭発表座長：担当セッション開始予定時間の15分前までに次座長席にお着きください。
症例検討（口演）は発表5分 質疑応答5分です。定時進行にご協力をお願い致します。
Oral Presentation: Please sit at the next chair seat before 15 minutes of your charged session and direct your session according to the schedule. (5 minutes for the presentation, 5 minutes for the discussion)

- 2) ポスター発表座長：ご担当セッションの時間は30分です。発表4分，質疑応答3分となっておりますので進行にご協力お願いします。

Poster Presentation: Your poster session time is 30 minutes. (4 minutes for the presentation, 3 minutes for the discussion) Please direct your session within a time frame.

5. 総会 JSOP general meeting

日本臨床口腔病理学会総会

日時：平成28年8月11日(木) 13:10～14:10

会場：広島大学広仁会館 2F 大会場

11th August 13:10～14:10

Meeting Place: Main Hall, Koujin-Hall, Hiroshima University

6. 懇親会 Reception

日時：平成28年8月11日(木) 19:00～21:00

会場：ひろしま美術館

会費：会員・非会員 7,000円（事前登録 6,000円）

大学院生 5,000円（〃 4,000円）

学部学生 無料（※但し学生証提示。大学院生は対象となりません。）

Date: Thursday, 11th August, 2016 19:00 ~ 21:00

Venue: Hiroshima Museum of Art

Reception fee: General member・Non member JPN 7,000 (Preregistration 6,000 JPN)

Postgraduate students JPN 5,000 (〃 4,000 JPN)

Undergraduate students Free (Please show your student ID card)

皆様のご参加をお待ち申し上げます。

Wellcome to the party!



口内環境メンテナンス

森永

オーラバリア

口臭・口内ケアタブレット

オーラバリア®はニオイの元に注目したキレイな息をサポートする
森永乳業の特許成分(ラクトフェリン+ラクトパーオキシダーゼ)です。

気になる時にサッと口に入れるだけ!



ブルーベリー味



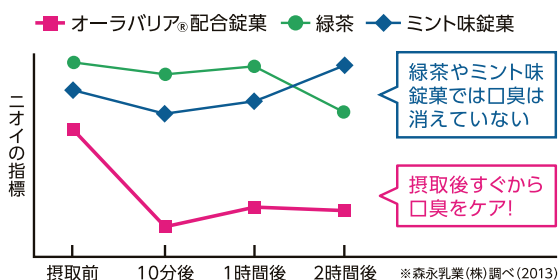
レモンミント味

オーラバリア
の魅力を
分かりやすくご紹介!



YouTube 森永乳業
公式チャンネル

オーラバリア®は口臭を効果的にケアすることが実証されています。

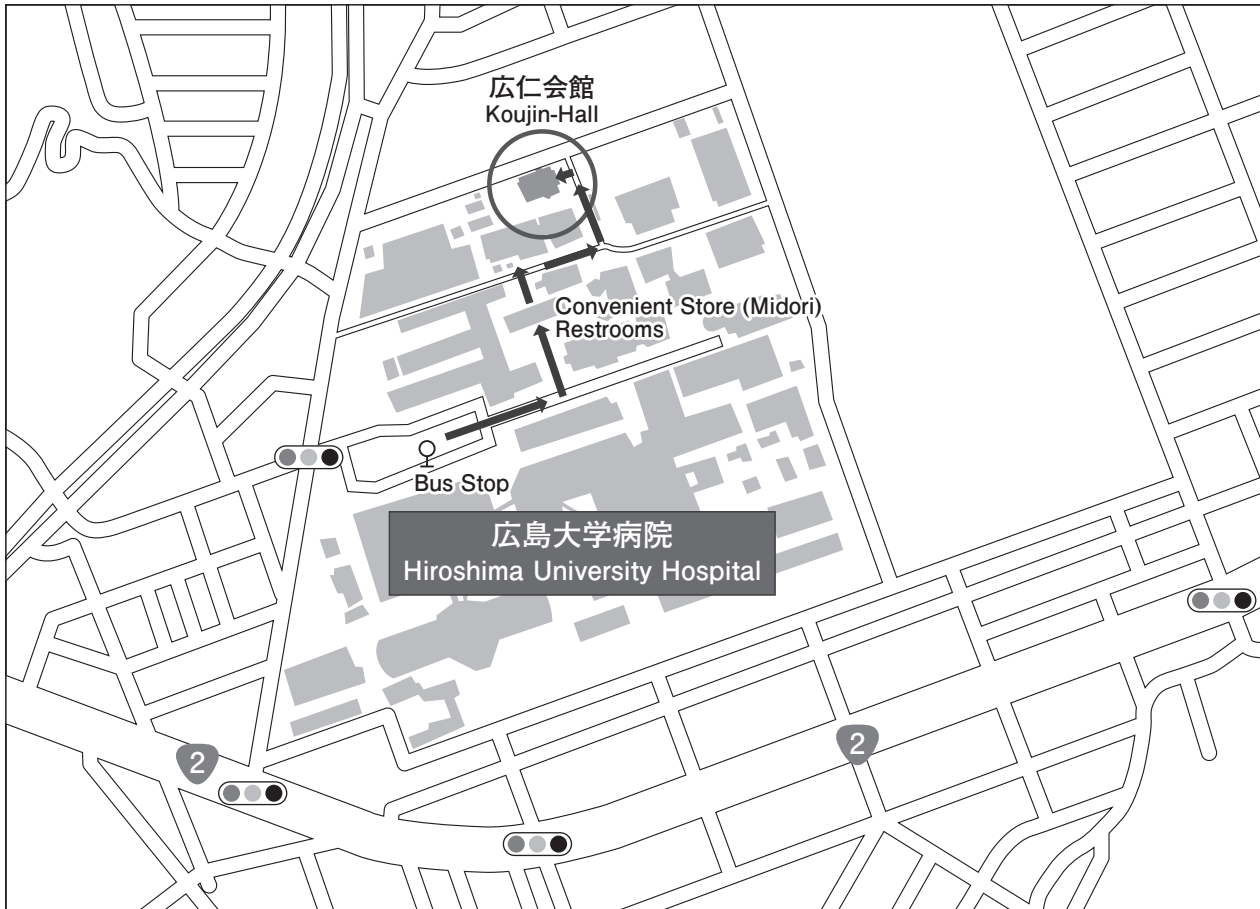


ミント味のタブレットなどでは、香りで口臭をまぎらわしているだけです。また、お茶を少し飲むだけでは口臭が残ることがあります。オーラバリア®は元から口臭をしっかりケアするのが特徴です。

森永乳業

会場周辺案内図

Location Map



会場交通案内 Venue & Access

広島大学広仁会館

〒734-8553 広島市南区霞1-2-3
TEL : 082-257-5098

空港から

広島空港（2番乗り場）→（広島空港リムジンバス：広島駅新幹線口行き）→JR広島駅 新幹線口（北口）→地下通路→在来線口（南口）→広電バス5番線「大学病院行き」へ乗換→終点（大学病院）下車

JR広島駅から

JR広島駅 在来線口（南口）→広電バス5番線「大学病院行き」へ乗換→終点（大学病院）下車

Koujin-Hall, Hiroshima University

1-2-3 Kasumi, Minami-ku, Hiroshima JAPAN
Phone +81-82-257-5098

Access from Hiroshima Airport

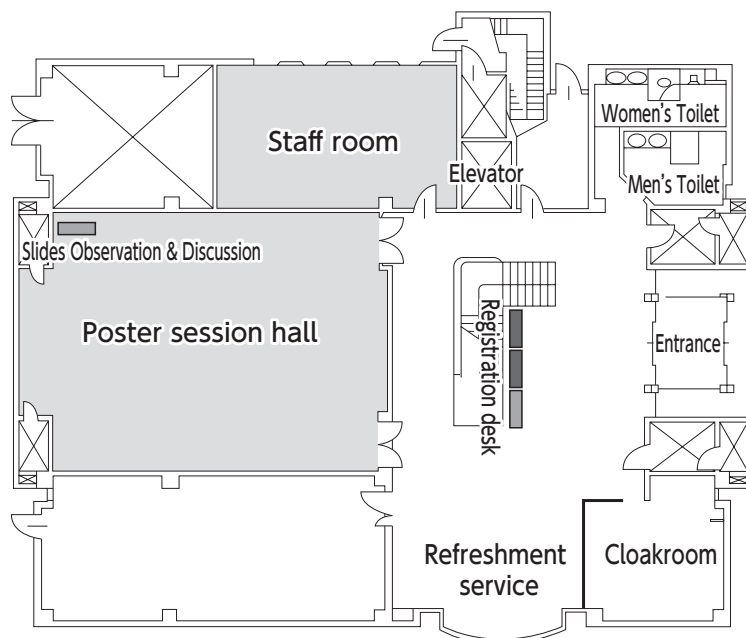
Hiroshima Airport (Bus stop No. 2) → (Hiroshima Airport Limousine Bus: Bound for JR Hiroshima Station) → Shinkansen (North) Exit of JR Hiroshima Station → Underground Passage → Conventional Line (South) Exit → Hiroden Bus, No. 5 Line: Bound for University Hospital → Last stop: University Hospital (Daigaku Byou-in)

Access from JR Hiroshima Station

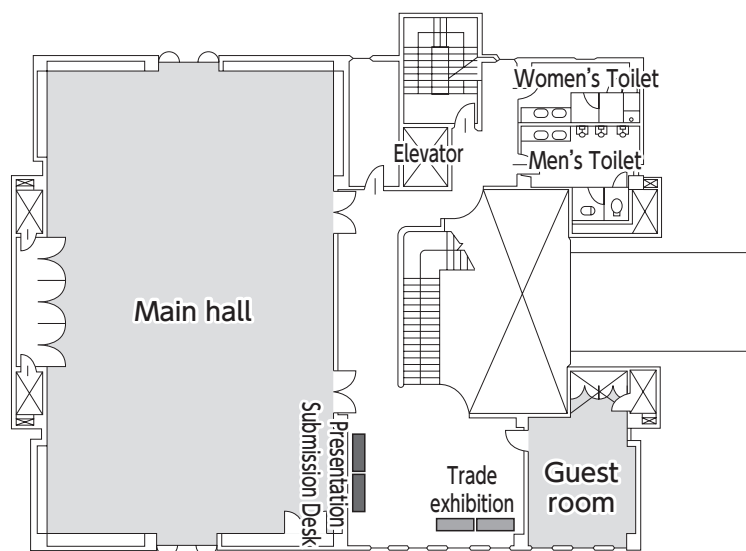
Conventional Line (South) Exit of JR Hiroshima Station → Hiroden Bus, No. 5 Line: Bound for University Hospital → Last stop: University Hospital (Daigaku Byou-in)

会場案内図 *Floor Map*

1 F



2 F



懇親会会場

Reception



日時：2016年 8 月11日(木) 19:00～21:00

会場：ひろしま美術館

〒730-0011 広島市中区基町3-2

中央公園内（リーガロイヤルホテル北側）

TEL：082-223-2530 FAX：082-223-2519

<http://www.hiroshima-museum.jp/guide/access.html>

Date: 19:00～21:00 THU, 11th August, 2016.

Venue: Hiroshima Museum of Art

3-2 Motomachi, Naka-ku, Hiroshima City

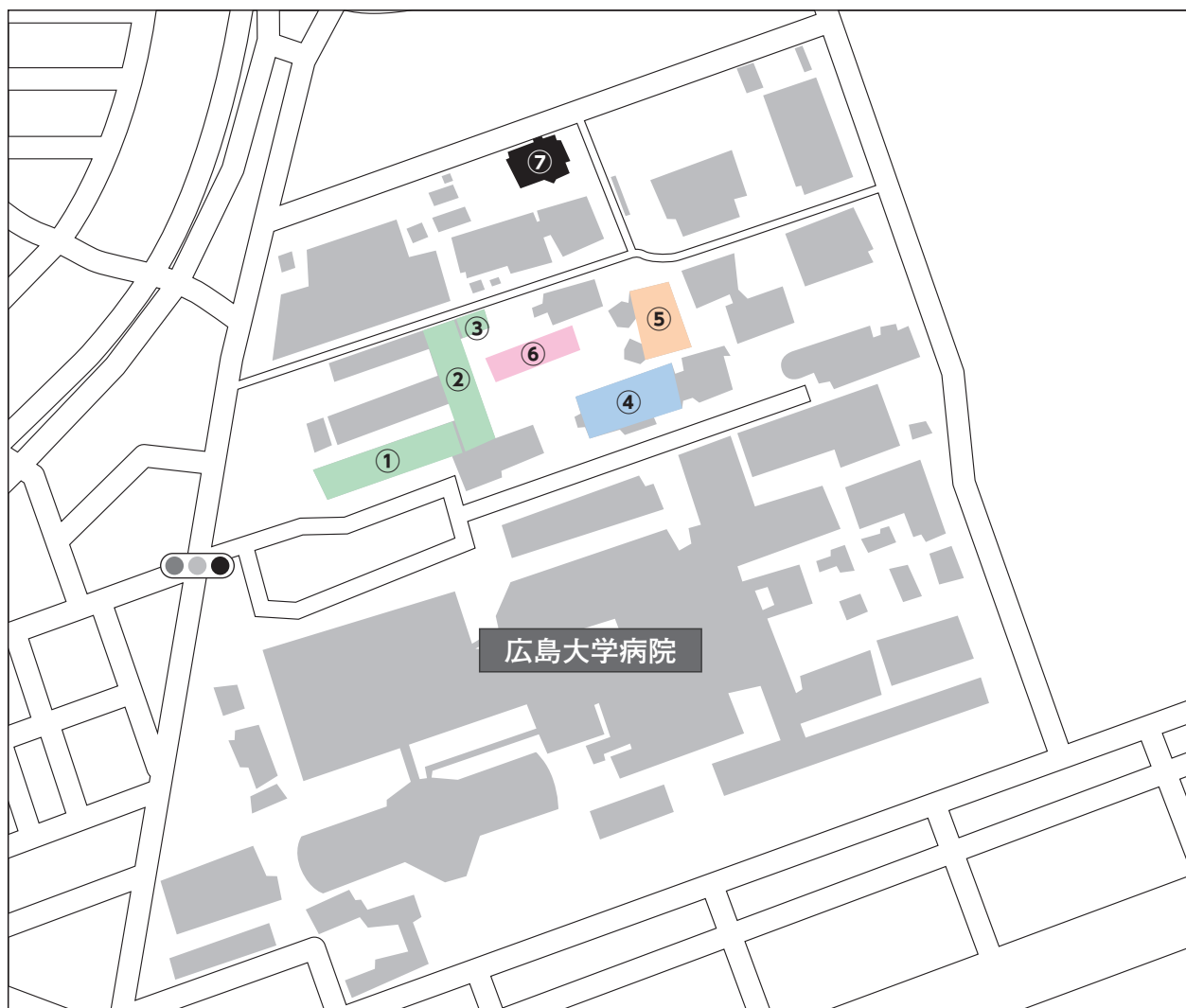
(in Central Park)

Fax. +81-82-223-2519

<http://www.hiroshima-museum.jp/en/guide/access.html>

構内案内図

Location Map



- ①A棟 6F：科研B全体会議
- ②B棟 2F：常任理事会
1F：理事会
- ③D棟 2F：教育スライドセミナーⅢ
- ④基礎社会医学棟 1F：セミナー受付
2F：スライドセミナーⅠ・各種委員会
- ⑤基礎講義棟 2F：スライドセミナーⅡ
- ⑥霞会館 2F ビオラダイニング：若手の集い
- ⑦広 仁 会 館 1F：ポスター会場
Koujin-Hall 1F：Poster Presentation Hall
2F：大会場
2F：Main Hall

学会日程表／第 1 日：8 月10日(水)

	歯学部棟	基礎・社会医学棟							
	大講義室 (A棟 6 階)	チュートリアル1 (2 階)	チュートリアル2 (2 階)	チュートリアル3 (2 階)	チュートリアル4 (2 階)	チュートリアル5 (2 階)	チュートリアル6 (2 階)	チュートリアル7 (2 階)	チュートリアル8 (2 階)
9 : 00	科研 B 全体会議								
11 : 00									
12 : 30					各種委員会				
13 : 10		将来検討 委員会	編集 委員会	研究 委員会	企画 委員会	会則検討 委員会	教育 委員会	医療業務 委員会	広報・渉外 委員会

	歯学部棟			基礎・社会医学棟		基礎講義棟	霞会館
	第 6 講義室 (B 棟 1 階)	大会議室 (B 棟 2 階)	第 2 実習室 (D 棟 2 階)	ホール (1 階)	セミナー室2 (2 階)	形態実習室 (2 階)	ヴィオラ ダイニング (2 階)
13 : 20		常任理事会 1.5h					
14 : 50							
15 : 00	理事会 2.5h						
16 : 00				スライド セミナー受付			
17 : 00							
17 : 30			スライド セミナーⅢ		スライド セミナーⅠ	スライド セミナーⅡ	
19 : 00							若手の集い
21 : 00							

学会日程表／第2日：8月11日(木) Schedule／2nd day : Thu, 11th Aug

	大会場 Main Hall	ポスター会場 Poster Hall	懇親会場 (広島美術館) Reception (Hiroshima Museum of Art)
9:00			
9:05	開会挨拶 (5m)	ポスター貼り付け Poster Mounting	
	歯源性腫瘍セッション-WHO分類改定に向けて John Wrigh教授 良性歯源性腫瘍 Edward Odell教授 悪性歯源性腫瘍 Paul Speight教授 嚢胞と腫瘍の境界 Session on Odontogenic Tumors – Towards the Next WHO Classification Prof. John Wright: Benign Odontogenic Tumors Prof. Edward Odell: Malignant Odontogenic Tumors Prof. Paul Speight: The Cyst-Tumour Interface		
10:35	休憩 break	ポスター展示 Poster Display	
10:40	症例検討 歯源性腫瘍 1 Case/Slide Seminer: Odontogenic Tumor 1		
11:10	症例検討 歯源性腫瘍 2 Case/Slide Seminer: Odontogenic Tumor 2		
11:40	休憩 break		
12:00	ランチョン講演A 栗原 英見 教授 (共催：サンスターグループ オーラルケアカンパニー) 「Porphyromonas gingivalis に対する血中抗体価検査の臨床的有用性」 Luncheon Lecture A : Prof. Hidemi Kurihara (Sponsor: SUNSTAR Inc.) "New Clinical Value of Measurement of Antibody Level against Porphyromonas gingivalis"		
13:00	休憩 break		
13:10	総会 General Meeting of JSOP		
14:10	休憩 break		
14:20	特別講演1 山本 卓 教授 「ゲノム編集技術の基礎と最近の話題」 Special Lecture 1 : Prof. Takashi Yamamoto "Basics and recent topics of genome editing technology"		
15:20	休憩 break		
15:30	症例検討 歯源性腫瘍 3 Case/Slide Seminer: Odontogenic Tumor 3		
16:00	症例検討 歯源性腫瘍 4 Case/Slide Seminer: Odontogenic Tumor 4		
16:20	休憩 break		
16:30		学部学生ポスター賞/ポスター賞審査 Discussion and Review: General Poster Award and Undergraduate Poster Award Session	
17:30		ポスター撤去 Poster Removing	
19:00			懇親会 Welcome party 学部学生ポスター賞, ポスター賞発表 Announcement of Undergraduate Poster Awards and General Poster Awards

学会日程表／第3日：8月12日(金) Schedule／3rd day：Fri, 12th Aug

	大会場 Main Hall	ポスター会場 Poster Hall
9 : 00	前癌病変および口腔癌セッション WM Tilakaratne教授：上皮性異形成症のグレーディング Rosnah Zain教授：増殖性疣贅型白板症 Oral Premalignant and Malignant Lesions Prof. WM Tilakaratne: Grading Oral Epithelial Dysplasia Prof. Rosnah Zain: Proliferative Verrucous Leukoplakia	ポスター貼り付け Poster Mounting
9 : 40	JSOP 企画委員会指定セッション 口腔癌診断基準検討委員会報告 「口腔癌診断の均霽化を目指して」 Session Organized by JSOP Planning Committee Report from the Committee of Diagnostic Criteria of Oral Cancer - Towards the Standardization of Oral Cancer Diagnosis -	ポスター展示 Poster Display
10 : 40	休憩 break	
10 : 50	症例検討：その他の頭頸部病変 1 Case/Slide Seminer: Other Diseases of Head and Neck Region 1	
11 : 20	症例検討：その他の頭頸部病変 2 Case/Slide Seminer: Other Diseases of Head and Neck Region 2	
11 : 40	休憩 break	
12 : 00	ランチョン講演 B 長尾 俊孝 教授 「“新” WHO分類に基づいた唾液腺腫瘍の病理診断法」 Luncheon Lecture B : Prof. Toshitaka Nagao "Diagnostic Clues in Salivary Gland Tumor Pathology Based on “New” WHO Classification"	
13 : 00	休憩 break	
13 : 10	特別講演 2 安井 弥 教授 「がんの新規診断治療開発に関する分子病理学」 Special Lecture 2 : Prof. Wataru Yasui "Molecular Pathological Approach to Develop Novel Cancer Diagnostics and Therapeutics"	
14 : 10	休憩 break	
14 : 20	奨励賞講演 JSOP Award Presentation	
15 : 00	奨励賞授賞式 JSOPAward ceremony	
15 : 10	休憩 break	
15 : 50	症例検討：その他の頭頸部病変 3 Case/Slide Seminer: Other Diseases of Head and Neck Region 3	
16 : 00	休憩 break	一般ポスター討論 General Poster Discussion
17 : 00		閉会式 Closing Ceremony ポスター撤去 Poster Removing

ライオンの「ラクトフェリン」は
内臓脂肪を減らすのを助け
高めのBMIの改善に役立ちます

今日を愛する。
LION

ナイスリムエッセンス ラクトフェリン

内臓脂肪が 気になる方へ

- ✓ 健康的な体型を維持していきたい
- ✓ 内臓脂肪を減らしたい
- ✓ BMIが高めである



「腸まで届ける」

ライオンの独自技術を採用【特許出願中】

ラクトフェリンを「腸」まで届けて働かせるため、胃酸などから守る特殊コーティングを施した独自技術を採用。胃で分解させずに、腸まで届けることに成功しました。



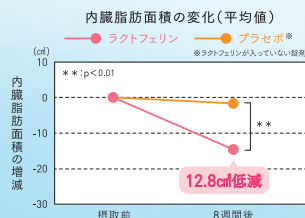
機能性表示食品
消費者庁届出番号 A1

ライオンの「ラクトフェリン」は、“腸まで届ける+ダブルの働き”で内臓脂肪を減らします。

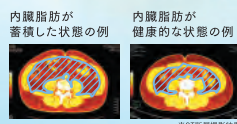
腸まで届いたラクトフェリンは、腸まわりの脂肪細胞（内臓脂肪）に直接作用。脂肪細胞などを用いた研究によって、「脂肪の分解を促す^{*1)}」「脂肪の合成を抑制する^{*2)}」というダブルの働きで内臓脂肪の低減をサポートすると考察しています。

*1) Biosci. Biotechnol. Biochem., 77, 566-71, 2013. *2) Br. J. Nutr., 105, 200-11, 2011

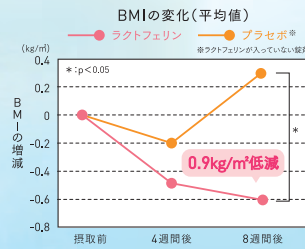
内臓脂肪の低減



「ラクトフェリン」を毎日摂取した結果、腹部の内臓脂肪面積の低減が確認されました。



BMIの改善



「ラクトフェリン」の摂取(毎日)と未摂取でBMIを記録。その結果、BMIの低減が確認されました。

【試験方法】
ラクトフェリンの内臓脂肪およびBMIの低減効果を測定するため、腹部肥満傾向の健康な成人男女26名(平均44.8歳)を対象に投与試験を実施。無作為に分けた2つのグループに、ラクトフェリンが入っている錠剤と入っていない錠剤を8週間摂取してもらい、腹部脂肪断面積とBMIを測定した。

出典: British Journal of Nutrition (2010), 104, 1488-1495

ナイスリムエッセンス ラクトフェリン

機能性成分と成分: ラクトフェリン300mg^{※1} 配合

※1: 機能性表示食品制度により、商品には下限値として270mgと記載しておりますが、配合量は300mgです。

※食生活は、主食、主菜、副菜を基本に、食事のバランスを、本品は、特定保健用食品と異なり、消費者庁長官による個別審査を受けたものではありません。本品は、疾病の診断、治療、予防を目的としたものではありません。

お問い合わせ・お申し込みはこちらまで。

0120-056-208

通話料無料

受付時間 9:00~20:00
年中無休

<http://www.lionshop.jp/>

LION ユーウェルスダイレクト

ライオン株式会社 ユーウェルス・ダイレクト事業本部 〒130-8544 東京都墨田区横綱 1-2-22

プログラム

Program

第1日 8月10日(水)

各種委員会, 常任理事会, 理事会

各種委員会	12:30~13:10	
12:30~13:10	将来検討委員会	基礎・社会医学棟 2Fチュートリアル 1
12:30~13:10	編集委員会	基礎・社会医学棟 2Fチュートリアル 2
12:30~13:10	研究委員会	基礎・社会医学棟 2Fチュートリアル 3
12:30~13:10	企画委員会	基礎・社会医学棟 2Fチュートリアル 4
12:30~13:10	会則検討委員会	基礎・社会医学棟 2Fチュートリアル 5
12:30~13:10	教育委員会	基礎・社会医学棟 2Fチュートリアル 6
12:30~13:10	医療業務委員会	基礎・社会医学棟 2Fチュートリアル 7
12:30~13:10	広告・渉外委員会	基礎・社会医学棟 2Fチュートリアル 8
常任理事会	13:20~14:50	歯学部棟 (B棟 2F) 大会議室
理事会	15:00~17:30	歯学部棟 (B棟 1F) 第6講義室

スライドセミナー

広島大学霞キャンパス 17:00~19:00

受付

基礎社会医学棟 1Fホール 16:00~17:00

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病理解剖の実際と専門医試験Ⅲ型問題フローチャート作成の留意点	岩手県立中央病院 病理診断センター 八重樫 弘 先生 …40
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若手の集い

広島大学霞会館 2F ヴィオラダイニング 19:00~21:00

司会 佐藤 由紀子 先生 (がん研究会有明病院 病理部)

病理学・骨代謝学, そして人々との出会い

東京医科歯科大学名誉教授
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第2日 8月11日(木)
Thursday, 11th August

開会挨拶

広島大学広仁会館 大会場 9:00~9:05

Opening Address

Main Hall, Koujin-Hall, Hiroshima University 9:00~9:05

President: Prof. Takashi Takata

*Department of Oral and Maxillofacial Pathobiology, Institute of Biomedical and Health Sciences,
Hiroshima University*

歯原性腫瘍セッションーWHO分類改定に向けて

大会場 9:05~10:35

Session on Odontogenic Tumors - Towards the Next WHO Classification

Main Hall 9:05~10:35

Chair: Prof. WM Tilakaratne

Oral Pathology, Faculty of Dental Sciences University of Peradeniya

Prof. Takashi Takata

*Department of Oral and Maxillofacial Pathobiology, Institute of Biomedical and Health Sciences, Hiroshima
University*

9:05~9:35 Benign Odontogenic Tumors

Diagnostic Sciences, TAMU Baylor College of Dentistry

Prof. John Wright ...44

9:35~10:05 Malignant Odontogenic Tumors

Kings College London / Guy's and St Thomas's Hospitals NHS Foundation Trust

Prof. Edward Odell ...46

10:05~10:35 The Cyst-Tumour Interface

Unit of Oral & Maxillofacial Pathology, School of Clinical Dentistry, University of Sheffield

Prof. Paul Speight ...48

症例検討 歯原性腫瘍 1

大会場 10:40~11:10

Case/Slide Seminar: Odontogenic Tumor 1

Main Hall 10:40~11:10

Chair: Prof. Edward Odell

Kings College London / Guy's and St Thomas's Hospitals NHS Foundation Trust

Dr. Jun Cheng

Division of Oral Pathology, Niigata University Graduate School of Medical and Dental Sciences

10:40~10:50 C1-1 Submucosal tumor of maxillary gingiva

Department of Pathology, Himeji Red Cross Hospital

Hotaka Kawai ...52

10:50~11:00 C1-2 A tumor of maxilla

Department of Oral and Maxillofacial Pathobiology, Institute of Biomedical and Health Sciences, Hiroshima University

Chanbora Chea ...53

11 : 00~11 : 10 C1-3 A huge expansile lesion of the right mandible

Department of Oral Pathology, School of Dentistry, Seoul National University

Jae Il Lee ...54

症例検討 歯原性腫瘍 2

Case/Slide Seminar: Odontogenic Tumor 2

大会場 11 : 10~11 : 40

Main Hall 11:10~11:40

Chair: Prof. Rosnah Binti Zain

Oral Cancer Research and Coordinating Centre & Department of Oral and Maxillofacial Clinical Sciences, Faculty of Dentistry, University of Malaya

Dr. Kei Sakamoto

Department of Oral Pathology, Graduate School of Medical and Dental Sciences, Tokyo Dental and Medical University

11 : 10~11 : 20 C2-1 A case report of odontogenic tumor simulating fibrous dysplasia

Diagnostic Pathology Department, Kobe University Hospital

Chihoko Hirai ...56

11 : 20~11 : 30 C2-2 Tumor of the left maxilla : case report

Department of Oral Pathology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

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11 : 30~11 : 40 C2-3 A tumor of the maxilla

Department of Oral Pathology, School of Dentistry, Aichi Gakuin University

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ランチョン講演A (共催:サンスターグループ オーラルケアカンパニー)

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大会場 12 : 00~13 : 00

Main Hall 12:00~13:00

Chair: Prof. Hatsuhiko Maeda

Department of Oral Pathology, School of Dentistry, Aichi Gakuin University

New Clinical Value of Measurement of Antibody Level against *Porphyromonas gingivalis*

Department of Periodontal Medicine, Division of Applied Medical Sciences,

Institute of Biomedical and Health Sciences, Hiroshima University

Prof. Hidemi Kurihara ...60

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Chair: Prof. Takashi Takata

Department of Oral and Maxillofacial Pathobiology, Institute of Biomedical and Health Sciences, Hiroshima University

Basics and recent topics of genome editing technology

Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University

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Chair: Prof. John Wright

Diagnostic Sciences, TAMU Baylor College of Dentistry

Prof. Akio Tanaka

Department of Oral Pathology, Osaka Dental University

15 : 30~15 : 40 C3-1 A case of maxilla tumor

Department of Oral Molecular Pathology, Institute of Biomedical Sciences, Tokushima University Graduate School

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15 : 40~15 : 50 C3-2 A case of mandibular tumor in 7-year-old child

Department of Oral Molecular Pathology, Institute of Biomedical Sciences, Tokushima University Graduate School

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Department of Pathology, Hyogo College of Medicine

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Department of Oral Pathology, School of Dentistry and Dental Research Institute, Seoul National University

Prof. Hiroshi Ito

Division of Oral Pathology, Ohu University School of Dentistry

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Department of Oral Pathology, Asahi University School of Dentistry

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Division of Oral Pathology, Ohu University, School of Dentistry

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- GPA-15 Elimination of *P.gingivalis*-infection by dental therapeutic intervention is beneficial impacts on non-alcoholic steatohepatitis progression
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学生演題 ポスター賞
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第3日 8月12日(金)
Friday, 12th August

前癌病変および口腔癌セッション
Session on Oral Premalignant and Malignant Lesions

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Main Hall 9:00~9:40

Chair: Prof. Takashi Inoue

Department of Clinical Pathophysiology, Oral Health Science Center, Tokyo Dental College

9:00~9:20 Grading Oral Epithelial Dysplasia

Oral Pathology, Faculty of Dental Sciences University of Peradeniya

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9:20~9:40 Proliferative Verrucous Leukoplakia

Oral Cancer Research and Coordinating Centre & Department of Oral and Maxillofacial Clinical Sciences, Faculty of Dentistry, University of Malaya

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Session Organized by JSOP Planning Committee

大会場 9:40~10:40
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Department of Oral Pathology and Medicine, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University

Dr. Katsutoshi Kubo

Department of Oral Pathology, School of Dentistry, Aichi Gakuin University

Report from the Committee of Diagnostic Criteria of Oral Cancer
- Towards the Standardization of Oral Cancer Diagnosis -

Current Issue of Diagnostic Criteria for Oral Cancer

Department of Oral Pathology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University

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Division of Oral Diagnosis, Dental and Maxillofacial Radiology and Oral Pathology Diagnostic Services, The Nippon Dental University Hospital

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Challenges for the application of genome sequence in the spectrum of oral dysplastic lesions and squamous cell carcinoma

Department of Clinical Laboratory and Pathology, National Cancer Center Hospital

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Standardization of pathological diagnosis in oral cancer

*Department of Oral Pathology and Medicine, Graduate School of Medicine,
Dentistry and Pharmaceutical Sciences, Okayama University
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症例検討 その他の頭頸部病変 1

大会場 10:50~11:20

Case/Slide Seminar: Other Diseases of Head and Neck Region 1

Main Hall 10:50~11:20

Chair: Prof. Ming Zhong

Department of Oral Pathology, College of Stomatology, China Medical University

Dr. Makoto Urano

Department of Diagnostic Pathology, Fujita Health University, School of Medicine

10:50~11:00 C5-1 An autopsy case of a tongue root tumor

Department of Diagnostic Pathology, Fujita Health University, School of Medicine

Makoto Urano …114

11:00~11:10 C5-2 Tumor of the palate

Department of Diagnostic Pathology, Seichokai Fuchu Hospital

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11:10~11:20 C5-3 A case of palatal tumor

*Department of Oral Pathology, Division of Oral Pathogenesis and Disease Control,
Asahi University School of Dentistry*

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症例検討 その他の頭頸部病変 2

大会場 11:20~11:40

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Chair: Prof. Kannan Ranganathan

Department of Oral Pathology, Faculty of Dentistry, The TamilNadu Dr MGR Medical University

Prof. Masatake Asano

Department of Pathology, Nihon University School of Dentistry

11:20~11:30 C6-1 A case of mandibular bone tumor

Department of Pathology, Nihon University School of Dentistry

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Pathology Division, Shizuoka Cancer Center

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Chair: Dr. Junko Aida

Research Team for Geriatric Pathology, Tokyo Metropolitan Institute of Gerontology

Diagnostic Clues in Salivary Gland Tumor Pathology Based on the “New” WHO Classification

Department of Anatomic Pathology, Tokyo Medical University

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Department of Oral Pathology, Graduate school of medical and dental sciences, Kagoshima University

Molecular Pathological Approach to Develop Novel Cancer Diagnostics and Therapeutics

Department of Molecular Pathology, Institute of Biomedical & Health Sciences, Hiroshima University

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Chair: Prof. Ichiro Semba

Department of Oral Pathology, Graduate School of Medical and Dental Sciences, Kagoshima University

Tomoyuki Kondo

Department of Oral Pathology, Graduate School of Medical and Dental Sciences, Kagoshima University

Takahiro Gojoubori

Department of Pathology, Nihon University School of Dentistry

奨励賞授賞式

JSOP Award Ceremony

症例検討 その他の頭頸部病変 3

大会場 15 : 10~15 : 50

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Main Hall 15:10~15:50

Chair: Prof. Poramopron Klanrit

Department of Oral Diagnosis, Faculty of Dentistry, Khon Kaen University

Prof. Satoru Toyosawa

Department of Oral Pathology, Osaka University Graduate School of Dentistry

15 : 10~15 : 20 C7-1 A case of ulcerative lesion of maxillary gingiva

Department of Pathology, Nihon University School of Dentistry

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Laboratory of Oral Pathology, Faculty of Dental Science, Kyushu University

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Division of Oral Pathology, Ohu University School of Dentistry

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Department of Oral Pathology, Osaka University Graduate School of Dentistry

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Oral Pathology and Maxillofacial Department, Airlangga University

Dr. Kazuhiko Okamura

Division of Oral Pathology, Department of Morphological Biology, Fukuoka Dental College

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Department of Oral Pathology, Faculty of Dentistry, University of Dental Medicine, Yangon

Prof. Shuichi Hashimoto

Division of Oral Pathology, Department of Morphological Biology, Fukuoka Dental College

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Department of Oral and Maxillofacial Surgery, Fukuoka Dental college
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Division of Pathology, Department of Diagnostic and Therapeutic Sciences Meikai University School of Dentistry

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Department of Oral Pathology and Maxillofacial Surgery, School of Odonto-Stomatology, Hanoi Medical University

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Department of Oral & Maxillofacial Pathobiology, Graduate School of Biomedical & Health Sciences, Hiroshima University

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Division of Diagnostic Pathology Tsurumi University Dental Hospital

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Division of Oral Medicine and Pathology, Health Sciences University of Hokkaido

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Department of Oral and Maxillofacial Surgery, Faculty of Life Sciences, Kumamoto University

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Department of Pathology, Division of Anatomical and Cellular Pathology, Iwate Medical University

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Department of oral pathology, University of Medicine and Pharmacy Ho Chi Minh City

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Department of oral pathology, University of Medicine and Pharmacy Ho Chi Minh City

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First Department of Oral and Maxillofacial Surgery, Osaka Dental University

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Department of Oral Diagnostic Sciences, School of Dentistry, Showa University

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Department of Pathology, Division of Anatomical and Cellular Pathology, Iwate Medical University

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*Department of Oral Pathology and Medicine, Okayama University Graduate School of Medicine,
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Department of Oral and Maxillo-facial Surgery, School of Dentistry, Mongolian National University of Medical Science

Dr. Sadamitsu Hashimoto

Department of Biology, Tokyo Dental College

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University of Dental Medicine, Yangon

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Pathology Division, Shizuoka Cancer Center

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Department of Oral Pathology and Bone Metabolism, Nagasaki University Graduate School of Biomedical Sciences

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Laboratory of Oral Pathology, Faculty of Dental Science, Kyushu University

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Department of Oral Molecular Pathology, Institute of Biomedical Sciences, Tokushima University Graduate School

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Department of International Collaboration Development Dentistry,

Institute of Biomedical and Health Sciences, Hiroshima University

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Department of Oral Pathology, College of Stomatology, Dalian Medical University

Prof. Yuuichi Soeno

Department of Pathology, School of Life Dentistry at Tokyo, The Nippon Dental University

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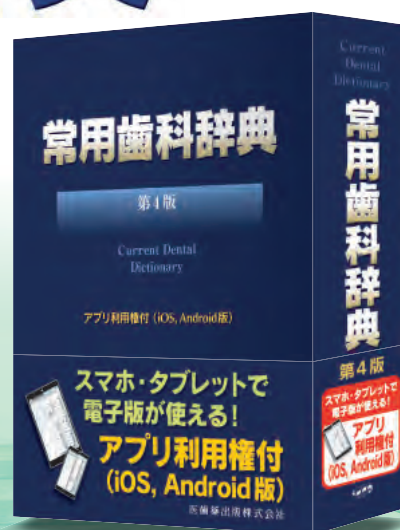
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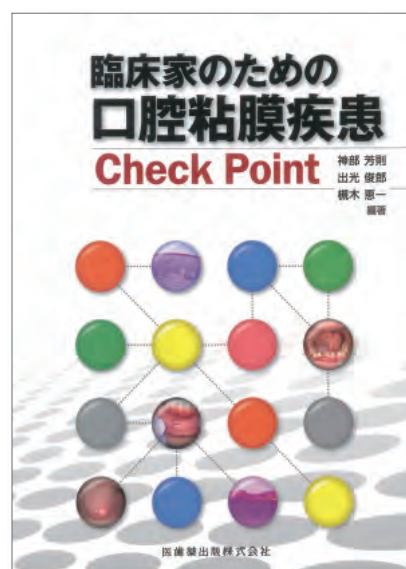
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口腔粘膜疾患の基本的事項について解説後，口腔を5部位に分けて，高頻度に見られる疾患名，臨床で遭遇する機会の多い口腔粘膜疾患について，実際の症例を供覧．後半では全身疾患と関連した口腔粘膜疾患について総説的に解説．



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講演抄録

Abstracts

第1日
8月10日(水)

スライドセミナー

スライドセミナーⅠ

病理解剖の実際と専門医試験Ⅲ型問題フローチャート作成の留意点

八重樫 弘 先生 (岩手県立中央病院病理診断センター)

口腔病理専門医試験のⅢ型問題(剖検症例問題)は我々歯学部出身者のみならず全ての受験者にとって、大きなプレッシャーであろう。即ち、脳を含む全身臓器から病理所見を拾い上げる能力、臨床所見、肉眼所見を加味して病理診断を総合的にまとめる能力、病態や死因を考察する能力が問われているからである。近年はどこの施設でも病理解剖数が減少し、実際に剖検報告書を作成する機会がますます減少していることも要因の一つであろう。また、歯学部等歯科系の施設在籍者にとっては、問題に出るような一般的な症例の解剖を経験する機会がなかなか難しいという現状もある。

今年のセミナーでは、前半で病理解剖の基本的な事柄を概説し、後半では事前に配布した解剖例の資料をもとに少人数グループに分かれてフローチャートを作成し、各グループの発表、discussionを通して留意点を再確認することを目指す。Workshop形式を予定している。

※参加者にはセミナー1ヶ月前までに資料をCDにて配布いたします。参加者はPC、USBを持参されることを推奨します。顕微鏡の使用はありません。

スライドセミナーⅡ

口腔の細胞診でわかること

宇都宮 忠彦 先生 (日本大学松戸歯学部 口腔病理学講座)

近年の口腔癌による死亡率の増加は、早期発見・早期治療の気運の促進や重要性を増している。また、口腔の腫瘍前駆病変や初期病変についても活発に議論され、その病態についてもある一定の知見が得られている。そのような背景の中、口腔の擦過細胞診も簡便性や非侵襲性、安全性、迅速性などの利点があるため、口腔粘膜疾患の診断に貢献することが期待されている。実際に感染症や炎症性疾患も含め多彩な口腔粘膜疾患の推定診断が可能とされ、病理診断においても市民権を得つつある。一方で、上皮異形成や上皮内腫瘍化では、しばしば表層の角化亢進が目立ち、中層～深層の細胞所見の検出が困難なため、真の病態を反映した所見を認めないことがあり、更に乳頭腫、疣贅状癌などの外向性発育を主体とする多彩な疾患が存在し、角化性異型細胞の所見についてしばしば浸潤癌との鑑別を困難にするなどの問題点もある。

本セミナーでは、口腔の細胞診でどのような疾患や病態が把握され、適正な診断が可能なのかを実際の症例を検討しながら、日常の細胞診断に役立つ要点を解説するとともに、前述の問題点や新報告様式に関する議論も鑑みて口腔細胞診の意義や見解について言及する。

※セミナーでは、実際の組織標本で観察する予定です。

スライドセミナーⅢ

唾液腺腫瘍診断の進め方

矢田 直美 教授 (九州歯科大学健康増進学講座口腔病態病理学分野)

唾液腺腫瘍は、日常診断業務の中で、口腔粘膜病変と比較すると接する機会が少ない。いざ遭遇すると、多彩な像を呈するため、majorな腫瘍でも診断に苦慮することがある。また、唾液腺腫瘍の疾患名は非常に多く、最終診断をするために、どこからアプローチをしていけばいいか迷うこともある。臨床側からは早急な診断を求められ、専門医試験では1症例3分の時間で判断しなければいけないため、限られた時間内での診断が必要となる。

本セミナーでは、唾液腺腫瘍の概説と専門医試験に高頻出する組織型を中心に、実際の症例を用いて、生検および手術検体で、肉眼、組織像のどの部分に着目するのか、特殊・免疫組織化学的染色の選択方法など、診断の進め方について言及させていただく。また、時間が許す限り、細胞診の典型像や腫瘍と間違えやすい腫瘍様病変についてあわせて解説する。

※セミナーでは、実際の組織標本で観察するため、標本を配布予定である。

第1日
8月10日(水)

若手の集い

第27回日本臨床口腔病理学会にて、将来検討委員会主催で「若手の集い」を下記の通り開催致します。今回は「病理学・骨代謝学、そして人々との出会い」という題で、診断、研究、また、山口先生のこれまでのご経験についてお話していただきます。若手の先生方にとっては、大先輩のお話を伺うまたとないチャンスですので、ご参加いただきたく存じます。

また、会の名称は「若手の集い」となっておりますが、各年齢層の会員の間での緊密なコミュニケーションは大切なことですので、各年齢層の先生方のご参会を心よりお待ちしております。

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歯原性腫瘍セッション

Session on Odontogenic Tumors

Chair : Prof. WM Tilakaratne (*Oral Pathology, Faculty of Dental Sciences
University of Peradeniya*)

Prof. Takashi Takata (*Department of Oral and Maxillofacial Pathobiology,
Institute of Biomedical and Health Sciences, Hiroshima University*)

第2日
8月11日(木)
Thursday, 11th August

歯原性腫瘍セッション「WHO分類改定に向けて」
Session on Odontogenic Tumors - Towards the Next WHO Classification

大会場 9:05~10:35
Main Hall 9:05~10:35



John M Wright DDS, MS

Regents Professor and Chair
Diagnostic Sciences
TAMU Baylor College of Dentistry
Dallas TX

Dr. John M. Wright is Regents Professor and Chairman of the Department of Diagnostic Sciences, Texas A&M Health Science Center, Baylor College of Dentistry in Dallas, Texas. He is an oral pathologist and a Diplomate of both the American Board of Oral and Maxillofacial Pathology and the American Board of Oral Medicine. He received his dental degree from West Virginia University and oral pathology training at Indiana University. He has contributed over 150 publications to the scientific literature, as well as 24 book chapters and three textbooks. Dr. Wright is a past President of the American Academy of Oral and Maxillofacial Pathology, the American Board of Oral and Maxillofacial Pathology and the International Association of Oral Pathologists. He has participated in over 400 statewide, national and international programs.

Benign odontogenic tumors- Towards the next WHO classification

The current WHO Classification of Odontogenic Tumors was published in 2005. Much has transpired in this area of pathology since 2005 and new entities have been reported. The WHO has formed a Consensus and Editorial Panel who has been charged to determine and produce the next WHO Classification of Odontogenic Tumors, Cysts and Allied Lesions which is scheduled for release in Jan of 2017. This lecture will provide a summary of the changes and new tumors included in the next WHO classification of odontogenic tumors.

第2日
8月11日(木)
Thursday, 11th August



Professor Edward Odell

Kings College London /
Guy's and St Thomas's Hospitals NHS Foundation Trust

Edward Odell is Professor of Oral Pathology and Medicine at King's College London and Clinical Lead for the Head and Neck Pathology Service at Guy's and St Thomas's Hospitals, London. His research interests are oral potentially malignant diseases and odontogenic tumours. He has published over 130 original research papers, and has authored or edited six textbooks. He was a member of the consensus group for the recent WHO blue book on head and neck tumours and is chair of the committee to develop an international dataset for odontogenic tumours for the International Collaboration on Cancer Reporting.

Malignant Odontogenic Tumors - Towards the Next WHO Classification

The WHO classification for malignant odontogenic tumours is now over 10 years old but requires some changes. Not many new entities have been described since 2005 and the main changes suggested by the reclassification group were to simplify the classification.

There is a difficult borderline between benign and malignant tumours, with a wide range of behaviour. Classical features of atypical cytology, necrosis and metastasis are seen only in high-grade lesions and the interpretation of infiltration at the margin is difficult because medullary space permeation may be seen in benign odontogenic tumours.

One of the main difficulties with the current classification is its complexity. Malignant neoplasms should be classified on the basis of their differentiation rather than their origin. Though the origin is of great interest to specialist histopathologists, it is often speculative, difficult to understand by non-specialists and not relevant to patient outcome. The WHO classifications have to be designed for non-specialist histopathologists and so simplification was an important aim. Similarly, the origin of tumours in a benign precursor is a poor defining characteristic and it is proposed that this should also be eliminated. It is also clear that within the odontogenic tumours there is considerable international variation. The proportion of malignant odontogenic tumours seems to be higher in China and possibly also in Japan. The appearances of some tumours as described in the literature appear to differ between Western and Eastern countries, but this may well be because the defining criteria in the classification are poor.

The question of metastasising ameloblastomas is also interesting. Is this a genuine malignant neoplasm? This rather depends on the definition of malignancy and in the future classification it will probably be listed with the benign tumours, in the same way that metastasising pleomorphic adenoma is classified.

Until now, molecular analysis of malignant odontogenic tumours has not proved useful for diagnosis. The description of EWSR1 rearrangements in clear cell carcinoma is interesting but appears to be non-specific.

The WHO classification considered a number of possible new entities including the recently described clear cell carcinoma with dentinoid and the adenoid ameloblastoma with dentinoid, but currently there is insufficient evidence to give these status as independent entities. Conversely, sclerosing odontogenic carcinoma has been accepted, though on the basis of few published cases, primarily because recognition may be of benefit to the patient by avoiding overaggressive treatment.

The odontogenic sarcomas remain largely unchanged in the new classification. These are well-defined entities. The question of whether carcinosarcoma should be reinstated is difficult. It was removed from the previous classification because there was insufficient immunohistochemical evidence of specific sarcoma differentiation. Unfortunately, many high-grade sarcomas have no differentiation to detect. Recent publications have provided some better evidence and the entity has been reinstated, largely on the grounds that it should probably have not been removed in the last classification. However, diagnosis needs to be based on strict criteria and the question of how ameloblastic fibrosarcomas with epithelial atypia should be classified is unresolved.



Professor Paul M Speight

Paul Speight is Professor in Oral and Maxillofacial Pathology at the School of Clinical Dentistry, University of Sheffield. He is a diagnostic pathologist with special expertise in head and neck cancer and salivary gland tumours.

He is a Past-President of the British Society for Oral and Maxillofacial Pathology, the International Association of Oral Pathologists and of the British Society for Oral and Dental Research. From 2003 to 2008 he was Editor-in-Chief of Archives of Oral Biology and he sits on 5 Editorial Boards. He has served on numerous national and international committees including for IADR, REF2014, NIHR, and Health Education England. He is current Chair of the Scottish Dental Academic Board, and of the Research Committee and the Awards Committee at the Faculty of Dental Surgery, RCS Eng.

His main research interests are in the field of oral cancer, including biomarkers and studies to evaluate early detection and screening in primary care. He has received a number of awards including a Distinguished Scientist Award from the International Association for Dental Research (2008), Award for Outstanding Leadership, Achievement and Dedication (American Academy of Oral and Maxillofacial Pathology, 2008), Senate Award for Excellence in Leadership (University of Sheffield, 2012) and the David L Turpin Award for Evidence-based Research (American Journal of Orthodontics and Dentofacial Orthopedics, 2015). He has published over 220 original research papers as well as a number of books and book chapters.

Unit of Oral & Maxillofacial Pathology, School of Clinical Dentistry, University of Sheffield

In the classification of odontogenic tumours and cysts there has been continuing uncertainty about the true nature of some of the lesions, for example if are hamartomas, neoplasms or “developmental”. There is also uncertainty about terminology with imprecise definitions and poor use of terms. In particular, the word tumour is poorly defined, used by some to denote merely a swelling, but by most to mean a neoplasm. Conversely the term “cyst” has been used to imply a non-neoplastic or developmental lesion, with no regard for the fact that neoplasms may also be cystic. This confusion has been exemplified by the debate around the name for the odontogenic keratocyst (OKC). In 2005 this was changed to keratocystic odontogenic tumour (KCOT) to indicate that the lesion is a neoplasm. This has important implications for management as well as for the wellbeing of the patient. The evidence for OKC being a neoplasm is still debated and the major finding of a PTCH gene mutation, while suggestive, is not sufficient evidence in itself to designate all OKCs as neoplasms. The new WHO consensus group has reverted to the name OKC on the basis that KCOT is not widely accepted and that at present there is insufficient evidence to justify a name change that implies a neoplasm.

There are similar debates about other lesions including the true nature of the *glandular odontogenic cyst*, *calcifying cystic odontogenic tumour* (CCOT) and *adenomatoid odontogenic tumour* (AOT). In the 2005 classification *calcifying odontogenic cyst* (COC) was replaced by CCOT, and at the same time the “solid” variant of COC was properly recognized as a neoplasm and renamed *dentinogenic ghost cell tumour*. The intention was also to redefine the COC as a neoplasm by using the term “tumour” in CCOT. However the evidence for CCOT being a neoplasm is weak: the lesion is usually a simple cyst, rarely recurs and is often associated with an odontome. It is felt therefore that the term COC should remain. Clearly more research is needed and the use of increasingly advanced molecular techniques may bring further clarity to the true nature of these lesions. For future classifications we need to address the debate around the relationship between *glandular odontogenic cyst* and *mucoepidermoid carcinoma*, and to learn more about AOT, which some believe may be a simple “cyst” or a hamartoma. The true nature of *unicystic ameloblastoma* is also causing concern, particularly with regard to its behaviour and appropriate management. There is a close similarity between COC and simple unicystic ameloblastoma in terms of both behaviour and histology, and these lesions may be related.

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症例検討 歯源性腫瘍 1

Case/Slide Seminar: Odontogenic Tumor 1

Chair : Prof. Edward Odell (*Kings College London / Guy's and St Thomas's
Hospitals NHS Foundation Trust*)

Dr. Jun Cheng (*Division of Oral Pathology □ Niigata University Graduate
School of Medical and Dental Sciences*)

上顎歯肉粘膜下腫瘍

Submucosal tumor of maxillary gingiva

河合 穂高^{1,2}, 伏見 聡一郎¹, 堀田 真智子¹, 中野 敬介², 長塚 仁²,
和仁 洋治¹

Hotaka Kawai^{1,2}, Soichiro Fushimi¹, Machiko Hotta¹, Keisuke Nakano²,
Hitoshi Nagatsuka² and Yoji Wani¹

¹ 姫路赤十字病院, 病理診断科

² 岡山大学大学院医歯薬学総合研究科 口腔病理学分野

¹ Himeji Red Cross Hospital, Department of Pathology

² Department of Oral Pathology, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences Okayama University

【症例】74歳・男性

【臨床経過】

1 か月前から右側上顎智歯部歯肉に腫瘤を触知し、腫瘍に伴う義歯使用困難を訴え来院した。麻痺や疼痛はなかった。受診時、大きさ15mmの弾性軟の腫瘤を認めた。画像所見では骨破壊像は認められなかった。上顎部分切除が行われた。

【肉眼所見】

粘膜に義歯性潰瘍はみられたものの、腫瘍の表面は平滑であった。断面では粘膜下に境界明瞭な白色の占拠性病変を認めた。出血や壊死巣はみられなかった。

【病理所見】

腫瘍は口腔粘膜上皮との連続性はなく、骨への浸潤もなかった。腫瘍細胞は好塩基性の胞体を持ち、多くの部で索状もしくはシート状に増殖し、辺縁では大小の胞巣を形成し浸潤していた。空胞状の胞体を有する細胞や、大型で異型の強い細胞も含まれていた。一部では、歯堤様構造や、歯胚様構造を認め、エナメル上皮腫様の成分が観察された。

【検討事項】病理組織診断について。

A gingival region tumor of 74-year-old male. Submucosal tumor of the right maxillary molar area was noted. The tumor was 15 mm in diameter and its mucosal surface was smooth. Total tumor excision was performed. On cut surface the tumor was white-colored and well-demarcated without hemorrhage nor necrosis. Tumor was solid and composed of basophilic cells. Most tumor cells were columnar-shaped or round cells. Some cells were with clear cytoplasm and bizarre nuclei. In the periphery of the tumor, ameloblastoma-like structure was seen.

A tumor of maxilla

**Chanbora Chea¹, Toshinori Ando¹, Hisako Furusho¹, Mutsumi Miyauchi¹,
Tomoaki Hamana², Yasutaka Hayashido³, Tetsuji Okamoto², Ikuko Ogawa⁴ and
Takashi Takata¹**

¹ *Department of Oral and Maxillofacial Pathobiology, Institute of Biomedical and Health Sciences, Hiroshima University*

² *Department of Molecular Oral Medicine and Maxillofacial Surgery, Institute of Biomedical and Health Sciences, Hiroshima University*

³ *Oral and Maxillofacial Surgery, Hiroshima University Hospital*

⁴ *Center of Oral Clinical Examination, Hiroshima University Hospital*

A 74-year-old female who complained swelling of right maxilla was referred to our hospital. Intraoral examination showed that a 45×30mm-sized elastic hard painless tumor mass covered by normal mucosa, located in the region from right upper first premolar to the maxillary tuberosity. CT scan revealed a tumor mass with heterogeneous enhancement from the right maxillary alveolar area into the maxillary sinus. In the posterior region, the tumor invaded into pterygopalatine fossa with bone destruction of pterygoid plate.

Biopsy specimen revealed that the tumor consisted of round or short spindle cells with clear cytoplasm containing glycogen granules. Mitotic activity and cellular atypism were not prominent. Ki-67 labeling index was low. Although a definitive diagnosis could not be decided, low grade malignant odontogenic epithelial tumor was highly suspected. Hemimaxillectomy was done. The tumor was relatively well-demarcated but invaded into the surrounding tissues. It was composed of diffusely distributed spindle cells and clusters of round cells with eosinophilic/clear cytoplasm. Although cellular atypism was scant, scattered mitotic figures were seen. Ki-67 labeling index varied by location in tumor. There is no evidence of recurrence and metastasis after 1 year of operation.

Consideration: histopathological diagnosis

A huge expansile lesion of the right mandible

Jae-Il Lee, Kyu-Young Oh, Hye-Jung Yoon, Seong-Doo Hong

Department of Oral Pathology, School of Dentistry, Seoul National University, Seoul, Republic of Korea

A 52-year-old male presented with massive swelling on the right mandible, lasting two years (Figure 1). The patient had no pain, but complained of sporadic bleeding in the right mandibular posterior gingiva. His past medical history was unremarkable.

A panoramic radiograph (Figure 2) and computed tomography (Figure 3) demonstrated a huge enhancing mass destructing the right mandibular body and ramus. Some foci of high attenuation, suggestive of calcification, were observed within the lesion.

Incisional biopsy was done, and, subsequently, the patient underwent partial mandibulectomy with neck dissection.



Figure 1

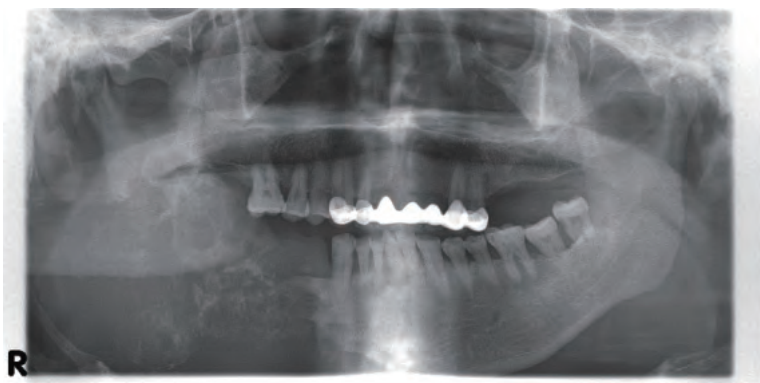


Figure 3

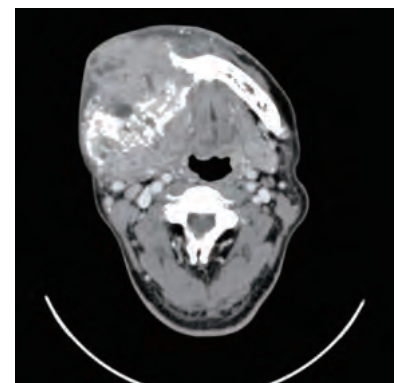


Figure 2

症例検討 歯原性腫瘍 2

Case/Slide Seminar: Odontogenic Tumor 2

Chair : Prof. Rosnah Binti Zain (*Oral Cancer Research and Coordinating Centre & Department of Oral and Maxillofacial Clinical Sciences, Faculty of Dentistry, University of Malaya*)

Dr. Kei Sakamoto (*Department of Oral Pathology, Graduate School of Medical and Dental Sciences, Tokyo Dental and Medical University*)

Fibrous dysplasiaとの鑑別を要した腫瘍の1例

A case report of odontogenic tumor simulating fibrous dysplasia

平井 千浦子¹, 神保 直江¹, 森永 友紀子², 廣瀬 隆則¹, 廣瀬 勝俊³,
岸野 万伸³, 豊澤 悟³, 伊藤 智雄¹
Chihoko Hirai¹, Naoe Jimbo¹, Yukiko Morinaga², Takanori Hirose¹,
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54歳男性。下顎右側の違和感を主訴に近医受診。CTでは頬舌的な骨膨隆とすりガラス状の骨吸収を認めた。同部位では歯根吸収はなく、生検材料でfibrous dysplasiaと診断した。その後、顎骨透過像の増大を認め犬歯および小臼歯の歯根端切除術施行、同時に腫瘍の一部を摘出した。摘出組織材料では豊富な線維性骨の形成のほか、生検標本とは異なり、骨梁間には少量ながら淡明な細胞質を有する上皮集塊がみられた。これらの上皮集塊はCK14/CK19が陽性で、異型が弱いものの虫食い状の広がりを示しており、歯源性悪性腫瘍と考えたが、骨成分の解釈については不明とした。その後、下顎骨区域切除術が行われ、摘出組織材料と同様の所見で、豊富な線維増生を背景に異型の弱い上皮が不規則に増殖する像もみられた。本例は画像所見、組織所見とも悪性腫瘍と認識することが難しくfibrous dysplasiaとの鑑別が必要な線維性骨の形成が非常に目立っていたが、骨成分の解釈が不明である。

問題点：病理学的診断

A 54-year-old man with right mandibular pain presented and CT showed osteolytic-expanded mass in right mandible. Biopsy showed proliferation of bone trabeculae and fibrous tissue. The initial diagnosis was fibrous dysplasia. One month later, tumor re-grew and expanded time-dependently. Enucleation and subsequent mandibulectomy were performed. Histologically both showed scattered clear cell clusters with diffuse sclerotic fibrous background and bone formation with / without osteoblast rimming. The clear cells were immunohistochemically positive for cytokeratin 14 and 19.

Consideration: histopathological diagnosis.

左上顎腫瘍の一例

Tumor of the left maxilla : case report

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Yae Ohata¹, Akane Yukimori¹, Kou Kayamori¹, Hiroyuki Harada², Toshiyuki
Izumo³ and Kei Sakamoto¹

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【臨床経過】3年前に左頬部の腫脹を自覚したが、症状が消失したため放置していた。再度同部の腫脹を自覚し、当院顎口腔外科を受診した。CTでは左上顎骨歯槽部～左右鼻腔および左上顎洞にかけて、境界やや不明瞭な41×28mm大の腫瘍を認めた。生検では悪性唾液腺腫瘍が疑われ、左上顎部分切除および分層植皮術が施行された。

【病理所見】左上顎骨から上顎洞に存在する最大割面30×25mmの腫瘍を認める。前方は白色充実性、後方は充実性の部分と嚢胞性の部分が混在し出血を伴う。組織学的には、腫瘍の前方部は大きさの揃った円形の核と明るい少量の細胞質を持つ基底細胞様細胞による充実性胞巣の像が主体である。多数の幻影細胞を伴い角化壊死した領域が多く見られる。腫瘍間質は乏しいが一部に粘液性間質を認める。後方側には腫瘍細胞が類骨様の基質あるいは石灰化物を形成する所見が目立つ。腫瘍の周囲は厚い線維被膜で囲まれた部分もあるが、腫瘍は骨を吸収して浸潤性に拡がる。

【問題点】病理診断

The patient is a 44 year-old Japanese male, who noticed swelling in the left maxilla 3 years before. Biopsy suggested malignant tumor, and partial maxillectomy was performed.

The tumor was 30×25mm in diameter, involving the maxilla and the maxillary sinus. On cut surface, the tumor was white solid with areas of cystic changes and hemorrhage. Histologically, the lesion was mainly composed of basaloid cells with round nuclei and scant, clear cytoplasm. Admixtures of isolated necrotic components with ghost cells were prominent. Osteoid matrix and calcification were also observed. The tumor infiltrated to the surrounding tissue with bone resorption.

上顎骨腫瘍

A tumor of the maxilla

杉田 好彦^{1,2}, 久保 勝俊^{1,2}, 吉田 和加¹, 鳥井 康義¹, 前田 初彦^{1,2}
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患者は35歳男性で、上顎左側前歯部から大臼歯部に埋伏歯を含んだ単房性のX線透過像が認められた。歯源性嚢胞疑いの臨床診断の下、全身麻酔下にて嚢胞摘出術が行われた。摘出物の嚢胞壁には裏装上皮の乳頭状あるいは疣贅状増殖が認められた。嚢胞壁内への浸潤像はほとんど認められなかった。病理組織学的には、裏装上皮は高度の過錯角化を示して疣贅状増殖を示し、角化層の陥凹部には角質栓が存在していた。上皮突起は太く棍棒状を呈し、細胞には異型性が認められた。また、核分裂像も散見された。

検討事項：病理組織学的診断

A 35-year-old male patient had noticed swelling of the maxillary gingiva. Clinical examination revealed an odontogenic cyst, mass in the part extended from the left maxilla anterior teeth to the first molar. The tooth was extracted, and the mass was enucleated surgically. Histologically, the tumor was composed of an exophytic lesion comprised of thickened, papillary squamous epithelium and also an endophytic growth of well differentiated squamous epithelium with cytologic atypia and mitotic activity.

ランチョン講演 A

Luncheon Lecture A

Chair : Prof. Hatsuhiko Maeda (*Department of Oral Pathology, School of Dentistry,
Aichi Gakuin University*)

第2日
8月11日(木)
Thursday, 11th August

ランチョン講演A (共催：サンスター株式会社)
Luncheon Lecture A : (Sponsor: SUNSTAR Inc.)

大会場 12:00~13:00
Main Hall 12:00~13:00



栗原 英見 Hidemi Kurihara

広島大学大学院 医歯薬保健学研究院 応用生命科学部門 歯周病態学研究室
Department of Periodontal Medicine, Division of Applied Medical Sciences,
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現職：

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広島大学病院 主席副病院長

職歴：

1980年 広島大学歯学部歯学科卒業
1983年 岡山大学助手歯学部
1984年 岡山大学講師歯学部附属病院
1989年 - 1991年 米国留学 (Emory University, Eastman Dental Center)
1992年 岡山大学歯学部助教授
1995年 広島大学歯学部 教授
2002年 広島大学大学院医歯薬学総合研究科 教授 (歯周病態学分野)
2012年～現職

学会活動：

日本歯周病学会 (専門医、指導医、常任理事 (医療委員会委員長))、日本口腔検査学会 (副会長)、
日本歯科保存学会 (理事、専門医、指導医)、歯科基礎医学会、日本歯科教育学会、日本再生医
療学会、日本環境感染学会、日本リウマチ学会、日本老年医学会、日本免疫学会、日本細菌学会、
日本人類遺伝学会、日本組織培養学会、International Association for Dental Research (IADR)

Porphyromonas gingivalis に対する血中抗体価検査の臨床的有用性 New Clinical Value of Measurement of Antibody Level against Porphyromonas gingivalis

－ 歯周治療の位置付けの変化と新しい指標 －

-New clinical indicators for systemic-oral link on periodontal treatment -

現在の日本における歯科の状況は、これまで大きな目標としてきた、「う蝕の減少」、「8020達成者の増加」などが順調に達成されつつあり、「歯科治療の全身健康への貢献」という次の大きなステップに上ろうとしている。それに伴い、歯科医療は従来の充填や欠損補綴という捉え方から、“感染・炎症の制御”、“口腔機能の維持・回復”という捉え方へとシフトしている。歯科疾患の多くは慢性細菌感染症であり、宿主（患者）は炎症で感染に応答する。その代表が慢性歯周炎である。慢性歯周炎は様々な疾患と関連していることが明らかになってきている。

歯周治療では治療を目的として個々の歯の歯周組織について臨床的な検査が多く導入されている。しかし、歯周組織を全身の一部として捉え、個々の患者の歯周炎全体が塊として全身へどのような影響を与えているのか示す指標はない。今後、医科歯科の連携を進めていくためには、歯周炎の大きさを一つの塊として評価できる指標が必要である。そこで、歯周炎を“感染”、“炎症”、“機能障害”という切り口から捉えなおす必要がある。

今回の講演では特にPorphyromonas gingivalisに対する血清抗体価が、歯周局所と全身の感染の理解、あるいは医科歯科連携にどのような意義があるのかを議論したい。

A goal of Japanese dentistry has been achieved by increasing of caries free people in childhood and “8020” people who have more than 20 own teeth at age 80. Now, the goal of Japanese dentistry is shifting that dental care contributes actively to healthy and long life. According to this movement, required quality of dentistry is changing to “control of infection and inflammation” and “maintenance or reconstruction of oral functions”. Majority of oral diseases are chronic bacterial infection and chronic inflammation is induced in the hosts (patients). Chronic periodontitis is representative oral infectious diseases and is related to various systemic diseases.

There are many examinations of each tooth and periodontal tissue for periodontal treatment. However, there is no examination to measure the total influence of periodontitis to whole body. New examination to evaluate whole intensity of periodontitis is required for further collaboration between medical and dental care. We should re-evaluate periodontitis from the aspects of “infection”, “inflammation” and “functional disturbance”. Examination of serum IgG antibody against Porphyromonas gingivalis is clinically valuable for deep understanding of periodontal and systemic infection, and for further medical and dental collaborations.

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* 歯肉剥離掻爬手術または歯周組織再生誘導手術についてレーザー照射により当該手術の対象歯の歯根面の歯石除去等を行った場合に算定可。



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軟組織疾患 (効果: 切開、止血、凝固、蒸散): 歯肉切開・切除、口内炎の凝固層形成、小帯切除、色素沈着除去

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特別講演 1

Special Lecture 1

Chair : Prof. Takashi Takata (*Department of Oral and Maxillofacial Pathobiology,
Institute of Biomedical and Health Sciences, Hiroshima University*)

第2日
8月11日(木)
Thursday, 11th August

特別講演 1 Special Lecture 1

大会場 14:20~15:20
Main Hall 14:20~15:20



Takashi Yamamoto

Department of Mathematical and Life Sciences, Graduate School of Science,
Hiroshima University, Hiroshima, JAPAN

1985-1989	Faculty of Science, Hiroshima University
1989-1992	Graduate School of Science, Hiroshima University
1992-2002	Research Associate, Department of Biological Sciences, Faculty of Science, Kumamoto University
1996	Ph.D. in Zoology, Graduate School of Science, Hiroshima University
2002-2003	Lecturer, Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University
2003-2004	Associate Professor, Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University
2004-present	Professor, Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University
2014-present	Visiting Professor, Center for Animal Resources and Development, Kumamoto University
2014-present	Visiting Professor, Chromosome Engineering Research Center, Tottori University
2016-present	Representative, The Japanese Society for Genome Editing

Basics and recent topics of genome editing technology

Genome editing with customizable site-specific nucleases, such as zinc-finger nuclease (ZFN), transcription activator-like effector nucleases (TALENs) and clustered regularly-interspaced short palindromic repeats (CRISPR)/Cas9, is rapidly becoming a staple method in cell, plant and animal research. In particular, rapid and simple multiple gene knockout using CRISPR/Cas 9 has had a great impact. Additionally, new technology such as chromatin imaging derived from genome editing has also gained considerable attention.

In my presentation, I will introduce recent research related to genome editing in mammals and discuss the possibility of new technologies in the life sciences. Additionally, I will talk about our system for genome editing such as the Platinum Gate TALEN system for constructing highly-active TALENs (Sakuma et al., 2013), the Multiplex CRISPR/Cas 9 Assembly System for creating all-in-one CRISPR/Cas 9 vector enabling highly-efficient multiplex genome editing in cells and animals (Sakuma et al., 2014), and the PITCh (Precise Integration into Target Chromosome) system, which facilitates convenient gene knock-in in cultured cells and organisms (Nakade et al., 2014; Sakuma et al., 2016). We believe that these methods will provide technical and practical contributions to a wide range of researchers interested in TALEN- or CRISPR/Cas 9 -based genome editing in a variety of cells and organisms.

[References]

MMEJ-assisted gene knock-in using TALENs and CRISPR-Cas 9 with the PITCh systems. Sakuma T, Nakade S, Sakane Y, Suzuki KT and Yamamoto T. Nature Protocols, 11, 118–133, 2016

Multiplex genome engineering in human cells using all-in-one CRISPR/Cas 9 vector system. Sakuma T, Nishikawa A, Kume S, Chayama K and Yamamoto T. Scientific Reports, 4 : 5400, 2014

Microhomology-mediated end-joining-dependent integration of donor DNA in cells and animals using TALENs and CRISPR/Cas 9 . Nakade S, Tsubota T, Sakane Y, Kume S, Sakamoto N, Obara M, Daimon T, Sezutsu H, Yamamoto T, Sakuma T and Suzuki K. Nature Communications, 5 : 5560, 2014

Repeating pattern of non-RVD variations in DNA-binding modules enhances TALEN activity. Sakuma T, Ochiai H, Kaneko T, Mashimo T, Tokumasu D, Sakane Y, Suzuki K, Miyamoto T, Sakamoto N, Matsuura S and Yamamoto T. Scientific Reports, 3 : 3379, 2013

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症例検討 歯源性腫瘍 3

Case/Slide Seminar: Odontogenic Tumor 3

Chair : Prof. John Wright (*Diagnostic Sciences, TAMU Baylor College of Dentistry*)
Prof. Akio Tanaka (*Department of Oral Pathology, Osaka Dental University*)

上顎骨腫瘍

A case of maxilla tumor

牛尾 綾¹, 工藤 保誠¹, 鯨岡 聡子¹, 大塚 邦紘¹, 常松 貴明², 山田 安希子¹, 石丸 直澄¹

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【症例】39歳, 男性

【臨床経過】

1年前から上顎右側小白歯に違和感があったが痛みはなかった。近医のX線検査にて上顎右側前歯部～小白歯部に至る上顎骨の広範な骨欠損が認められたため当院口腔外科に紹介となった。当院受診時, 上顎右側第一小白歯に動揺があり, CT検査にて上顎右側中切歯～第一小白歯部歯槽骨に長円形の嚢胞様透過像が認められた。病変に含まれる側切歯, 犬歯, 第一小白歯にはナイフカット状の歯根吸収が確認された。頬舌的な骨膨隆は軽度で, 口蓋側で一部骨欠損がみられた。

歯源性腫瘍を疑い, 上顎右側側切歯～第一小白歯を抜歯し, 抜歯窩から一部嚢胞化した腫瘍性病変を一塊として摘出した。骨との剥離は比較的容易で, 黄白色の内溶液を少量認めた。

【病理組織所見】

腫瘍内には細胞異型に乏しい上皮細胞の小塊や索状増殖がみられ, 間質には免疫組織学的にCongo red陽性を示すアミロイドの沈着や多数の炎症細胞浸潤がみられた。標本内に石灰化物は観察されなかった。

【検討事項】病理組織診断

A 39-year-old male felt strange without pain in his right upper premolar lesion from 1 year ago. CT revealed cystic lesion in the periapical bone of the anterior maxilla from right first incisor to right first premolar. Knife cut-formed resorption of the roots was observed in adjacent teeth. Histologically, resected tumor consisted of a fibrous stroma with small and cord-like islands of polyhedral epithelial cells lacking cellular atypism. Eosinophilic material was observed in a fibrous connective tissue stroma, and the material was positively stained with Congo red. Calcification was not observed in this tumor.

小児に発生した歯原性下顎骨腫瘍の1例

A case of mandibular tumor in 7-year-old child

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【症例】7歳, 男児

【現病歴】近在歯科にて左側下顎骨臼歯部に透過性病変があることを指摘され, 同院にて生検を実施し, エナメル上皮線維腫との診断を得たため, 当院口腔外科を受診した。初診時口腔内には左側下顎骨臼歯部に頬舌的な膨隆は認められなかった。パノラマX線検査では, 埋伏している「56間に存在する境界明瞭な透過性病変と, 「67が遠心に圧排されている像が認められ, CT画像にて, 病変が下顎管を圧排する像が確認された。全身麻酔下にて腫瘍摘出・搔爬術を施行した。摘出物は30×10×15mm大の灰白色弾性軟病変であり, 「6の歯嚢も含まれていた。

【病理組織学的所見】歯乳頭様間葉組織内に, 索状あるいは小島状のエナメル器様分化を示す上皮塊が散在し, 部分的に未石灰化骨様象牙質の形成が見られ, 内部に上皮・間葉両成分の封入が見られた。

【検討事項】病理組織診断

A 7-year-old Japanese boy was referred to our hospital with a well-defined radiolucency lesion in his left mandible. There was no visible swelling and expansion, and radiography revealed the lesion expanded to the mesiodistal side, resulting in displacement of the inferior alveolar canal and second molars. Histological findings showed that the tumor consisted of proliferating strands and clumps of odontogenic epithelium lying in mesenchymal tissue resemble dental papilla. In addition, poorly formed dysplastic dentine matrix appeared in a fraction of the tumor.

先天性エプーリスを疑われた症例 Clinically, suspicious of congenital epulis

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富永 和也², 西川 哲成², 田中 昭男²
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症例：8ヶ月，乳女児

家族歴・既往歴：特になし

臨床経過：生下時より左側下顎前歯部歯肉に暗赤色調の腫瘍を認めていた。複数の医療機関を受診するも、歯牙萌出まで経過観察の指示を受けていた。最近になって、当該歯牙の萌出は認めるものの、腫瘍内部に埋入しているため、精査目的にて当院歯科口腔外科を紹介受診された。初診時の肉眼所見は暗赤色調で表面はやや顆粒状を呈する7×6mm大の腫瘍を形成していた。デンタルX線検査では腫瘍内部に歯冠様硬組織を認め、歯槽骨はやや透過性の亢進を伴っていた。確定診断の為、腫瘍切除術が施行された。

組織学所見：腫瘍表層部は一部でびらんや潰瘍を認めた。間質は浮腫状で、やや大型の円形～類円形細胞や短紡錘形細胞の増生がみられた。また間質内および上皮係蹄部には歯堤様の歯源性上皮の存在を散在性に認めた。免疫染色では、歯源性上皮はCK19陽性で、間質細胞はvimentinに強陽性を示し、NSE、S-100P、 α -SMA、GFAPは陰性であった。またKi-67 labeling indexは1%未満であった。(標本1)

3カ月の経過観察中に再発傾向を認めた為、後継永久歯胚を含めた腫瘍全摘出術が施行された。(標本2)

検討事項：確定診断

An eight-month infant was admitted with a complaint of a mass, first noticed at birth, originated from the anterior mandible. Clinically, the mass revealed the redness and pedunculated. Histologically, the round or oval cells and short-spindle cells showed in the connective tissue, and odontogenic epithelial nodules were also seen. Immunohistochemical staining revealed that odontogenic epithelium was positive for CK19. The cells of connective tissue were strongly positive for vimentin, but not for S-100P, NSE, GFAP and α -SMA. Recurrence was observed three months after the resection. Finally, complete resection of the mass with permanent tooth germ was performed.

症例検討 歯源性腫瘍 4

Case/Slide Seminar: Odontogenic Tumor 4

Chair : Prof. Jae Il Lee (*Department of Oral Pathology, School of Dentistry and Dental Research Institute, Seoul National University*)

Prof. Hiroshi Ito (*Division of Oral Pathology, Ohu University School of Dentistry*)

上顎嚢胞

A cyst of the maxilla

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症例：30歳代, 男性

臨床経過：20XX年5月頃に歯肉の無痛性腫脹を自覚し, 本学附属病院歯科口腔外科を受診した。上顎左側の頬粘膜歯肉移行部に約10mm程度のやや硬い腫脹を触知した。デンタル, パノラマエックス線写真ならびにCTでは, 左側上顎骨に白線硬化を伴う境界明瞭な単房性エックス線透過像を認めたが, 周囲の歯は生活歯であった。顎骨内嚢胞の臨床診断下で嚢胞摘出術が施行された。

摘出物所見：摘出物は12×8 mmの嚢胞で, 比較的厚い嚢胞壁を有していた。

組織学的所見：嚢胞壁は線維性結合組織と裏装上皮から成り, 出血を伴っていた。裏装上皮は基底面が平坦で一部が球状に肥厚した上皮釘脚を含む厚い重層扁平上皮で, 内腔面表層には一層の立方形から円柱形細胞を認めた。また一部には線毛や好酸性細胞質を有する細胞だけでなく, PAS陽性の粘液細胞や微小嚢胞腔あるいは腺管様構造も認めた。

免疫組織化学的検索では, 裏装上皮はCK19, p53に陽性を示し, Ki-67は陽性率が低かった (MIB-1 index < 5%)。

検討事項：病理組織学的診断

A 30s-year-old man had a chief complain of a painless swelling of the left maxillary gingiva. Intraoral and radiographic examination showed the swelling (10mm) was located at the bucco-gingival region and a well-defined, unilocular radiolucency. Cyst enucleation was carried out under the diagnosis of a jaw cyst. Histopathologically, the cyst lining epithelium showed non-keratinized stratified epithelium composed of columnar to cuboidal shaped with eosinophilic cytoplasm, PAS-positive mucous or clear cells, microcystic or duct-like structure and spherical rete-ridges.

Immunohistochemistry was positive for CK19, p53 and Ki67 (MIB-1 index < 5%).

Discussion: Histopathological diagnosis

下顎骨嚢胞性病変

A cystic lesion of mandibular bone

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【症 例】51歳, 男性

【臨床経過】

近医を受診時に, 下顎右側臼歯部に透過像を指摘され, 精査希望で会津中央病院を受診した。初診時, 歯肉は健康色粘膜に覆われており, 膨隆は認められなかった。パノラマエックス線写真では下顎右側第2小臼歯と第1大臼歯の根尖を含む類円形の境界明瞭な透過像がみられた。嚢胞の臨床診断にて摘出術が施行された。

【病理組織所見】

嚢胞壁は線維性結合組織よりなり, 嚢胞上皮は非角化重層扁平上皮または多列線毛上皮であった。嚢胞上皮表層には, 多数の粘液細胞がみとめられ, 上皮の肥厚している部位では空胞化した細胞や粘液細胞で構成された腺管様構造も観察された。

【検討事項】 病理組織診断

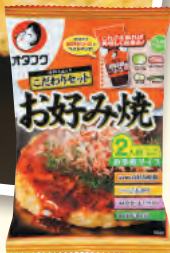
A 51 year-old male was referred to a hospital because of a cystic lesion in right sided mandibular molar area. Panoramic X-ray examination showed a well-demarcated unilocular radiolucency enclosing roots of the second premolar and the first molar. Histopathologically, the cyst wall consisted of fibrous connective tissue. The inner surface of the wall was lined by nonkeratinized squamous epithelium or pseudostratified ciliated epithelium. In the surface layer of the lining epithelium, numerous mucous cells were seen. Intraepithelial gland-like structures, which lined by mucous cells, and vacuolated cells were observed in the thickened epithelial lining.

お好コミュニケーション。

そこには、お好み焼がある。



週末は、お好み焼食べようDay!



恋も仕事もいろいろあるけれど、
みんなでお好み焼を囲めば、
不思議と気持ちが丸くなる。
きっと、明日もいいことがある。

食べて、笑って、
明日の栄養にしよう。



一般演題 ポスター賞
General Poster Award

Precursor IL-1 α のIL-8分泌誘導活性

Precursor IL-1 α induced IL-8 secretion

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【目的】 IL-1 は炎症や感染防御に重要な役割を果たす炎症性サイトカインである。もともと内在性発熱因子やリンパ球活性化因子などとして同定されており, 多様な生物活性を持つことが知られている。IL-1にはIL-1 α とIL-1 β があり, IL-1 α はprecursor form (pIL-1 α) として細胞内で産生された後, 膜結合カルシウム依存性プロテアーゼ カルパインによりN末端部分が切断されmature IL-1 α (mIL-1 α) となる。mIL-1 α は細胞外に分泌されて様々な機能を発揮する一方, pIL-1 α はintrakineとも呼ばれ, 核内で他の遺伝子発現のtranscriptionalなcontrolに関与する。本研究では, IL-1 α を強制発現させることでintrakineとしてのpIL-1 α が他の遺伝子発現と誘導にどのような影響を与えるかを検討した。

【方法】 ヒト子宮頸癌由来細胞株HeLaおよび口腔癌細胞株HSC3を35mm dishに5 x 10⁵ cell/ml播種した。full length IL-1 α をexpression vector pcDNAにsubcloningしてpcDNA-IL-1 α を作成し, transfectionに用いた。Transfection後, IL-1 α を強制発現させた群 (IL-1 α transfectant) とcontrol群の培養上清および細胞溶解液を回収した。細胞溶解液及び培養上清中のIL-1 α とIL-8の濃度はELISA法にて測定した。IL-8 mRNA発現はreal-time PCRにより, また, IL-8遺伝子の転写レベルでの発現調節についてはluciferase assayにより検討した。

【結果】 IL-1 α transfectantは培養上清および細胞溶解液中に高濃度のIL-1 α を産生した。またIL-1 α transfectantではcontrol群に比較して有意にIL-8産生が増強されていた。real-time PCRとluciferase assayの結果より, この増強は転写レベルで誘導されていることが解った。pIL-1 α はintrakineとしてIL-8発現の調節に関与する可能性が示唆された。

IL-1 α is an inflammatory cytokine with multiple functions. The precursor form of IL-1 α (pIL-1 α) is processed by Ca²⁺-dependent proteinase and secreted as mature IL-1 α . pIL-1 α localizes in the nucleus and contribute to the induction of some genes. The present study attempted to examine the effect of pIL-1 α on the expression and secretion of IL-8. The full length IL-1 α cDNA was inserted to pcDNA. This construct was transfected to HSC3 or HeLa along with the empty vector as a control. As results, pIL-1 α transfectant significantly augmented IL-8 secretion. The results indicated that pIL-1 α might control IL-8 expression in a transcriptional level.

口腔歯肉扁平上皮癌の浸潤先端部における Galectin-1 発現について The Galectin-1 expression at the tumor invasion front of oral gingival squamous cell carcinoma.

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【目的】 Galectin-1 (Gal1) は beta-galactoside に結合する動物レクチンである。腫瘍や周囲組織では Gal1 が高発現し、浸潤や転移に関与するとされ、腫瘍の浸潤先端部で Gal1 が過剰発現することが報告されている。近年、Gal1 が肝細胞癌細胞株において上皮間葉転換 (EMT) を誘発することが報告された。そこで、我々は、口腔扁平上皮癌においても、癌の浸潤先端部における Gal1 発現が口腔扁平上皮癌の EMT や転移に及ぼすのではないかと考えて、口腔扁平上皮癌の病理組織と細胞株を用いて検討を行った。【材料・方法】大阪大学歯学部附属病院で採取された扁平上皮癌組織標本 69 症例に対して Gal1 と Vimentin (Vim) に対する抗体を用いて二重免疫染色を施行した。Gal1 と Vim の発現レベルは、腫瘍全体における Gal1 と Vim 陽性範囲を、1: 発現範囲が 10% 以下, 2: 11% から 50%, 3: 51% 以上と 3 段階に評価し、浸潤先端部における Gal1 と Vim の発現の有無を評価して、それぞれ臨床病理学的因子との関連性について検討した。また、口腔扁平上皮癌細胞株 HSC-3 を用いて、創傷治癒アッセイを行った。次に、HSC-3 をコラーゲンゲルにて三次元培養し、Gal1 発現と EMT の関係を検討するため、Gal1、E-cadherin、Vim に対する抗体を用いた免疫蛍光染色を施行した。【結果と考察】扁平上皮癌の浸潤先端部の腫瘍胞巣で Gal1 と Vim の発現を認めた。Vim は Gal1 と重複して発現しており、両蛋白の発現レベルの増加と浸潤先端部での有無は、転移と相関関係を示した。HSC-3 を用いた創傷治癒アッセイでは、培養細胞の伸展先端部で Gal1 の発現と、Vim 発現と E-cadherin の減弱が認められ、EMT が起こっていることが示唆された。三次元培養実験では、コラーゲンゲル内に浸潤した培養細胞に Gal1 の発現と、Vim 発現が認められ、EMT が起こっていることが示唆された。以上から、口腔扁平上皮癌の浸潤先端部における Gal1 発現が腫瘍の EMT を誘発し、転移に関与する可能性が推測された。

Galectin-1 (Gal1) is the beta-galactoside-binding lectin. It is reported that Gal1 increases at the invasion front (IF) during metastasis. However, the role of Gal1 at the IF is uncertain. We investigated Gal1 and Vimentin expression at the IF in gingival squamous cell carcinoma (GSCC) tissues and human oral SCC cell line (HSC-3) using dual immunohistochemistry, immunofluorescence, wound healing assay and 3-dimensional collagen gel culture. Our results revealed that Gal1 expression in GSCC tissues and HSC-3 was concentrated at the IF and Gal1 was expressed in tumor cells undergoing EMT. Our findings suggest that Gal1 contributes to the EMT of the IF.

口腔扁平上皮癌由来培養細胞株間の (oral squamous cell carcinoma: OSCC) LPS 反応性の違いに関する研究

LPS responsiveness of OSCC-derived cell lines

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【目的】

Pathogen-associated molecular patterns (PAMPs: 病原体関連分子パターン) はToll-like receptor (TLR) 受容体などを介して種々の炎症性サイトカインの産生を誘導する。我々はPAMPsのうち、グラム陰性菌に由来する Lipopolysaccharide (LPS) に着目し、LPS が口腔扁平上皮癌細胞株 (OSCC) において IL-8 産生にどのような影響を与えるか検討した。

【材料および方法】

OSCC として HSC3 および Ca9-22 を用いた。IL-8 のタンパク発現量は ELISA 法により測定した。また LPS の受容体である TLR 2, TLR 4 さらにその下流に存在する MyD88 のタンパク質発現については Western blot 法を用いて検討した。細胞の刺激は P. gingivalis 由来 LPS, Flagellin, Poly (I:C) を用いた。プロテアソームの阻害剤には MG132 を用いた。

【結果および考察】

LPS 刺激による IL-8 産生誘導について Ca9-22 および HSC3 を用いて比較したところ、Ca9-22 では LPS 反応性が著しく低かった。そこで、LPS の受容体である TLR 2, TLR 4 およびシグナル伝達に必須の MyD88 のタンパク質発現について検索したところ、Ca9-22 においてはこれら分子の発現を Western blot により検出できなかった。MyD88 についてさらに、プロテアソーム阻害剤 MG132 を用いて検索したところ、Ca9-22 ではユビキチン化された MyD88 タンパク質が検出された。

【結論】

Ca9-22 においてはユビキチン-プロテアソーム活性が顕著に亢進しており、結果として TLR 2, TLR 4 および MyD88 のタンパク質発現が高度に抑制されている可能性が示唆された。

Lipopolysaccharide (LPS), a component of outer membrane of Gram negative bacteria belongs to PAMPs. LPS reactivity of OSCC, Ca9-22 and HSC3, was compared. In contrast to HSC3, Ca9-22 showed markedly reduced response. Western blot analysis revealed significantly reduced expression of TLR2, TLR4 and MyD88 in Ca9-22. Addition of MG132, a proteasome inhibitor, resulted in the detection of ubiquitinated-MyD88 in Ca9-22. Ubiquitin-proteasome system might be in a hyper activated state in Ca9-22.

Genome-wide Methylation Analysis in Oral Epithelial cells by Arecoline

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Objectives: DNA methylation is the most intensively studied epigenetic phenomenon. The disturbances of methylation state result in changes in gene transcription, playing an important role in biological behaviors of oral cancer. The habit of betel quid chewing is associated with oral squamous cell carcinoma and pre-malignancies. One of the major components in the betel quid is Arecoline. We examined genome-wide analysis of DNA methylation in human gingival epithelial cells (HGEP) stimulated with Arecoline.

Methods: HGEP were cultured and repeated, alternating 3 days with Arecoline (50 μ g/ml) and 3 days without Arecoline for 1 month. DNA was analyzed by Human CpG Island Microarray (Agilent technology). A global analysis of mRNA expression was carried out using DNA microarray (human SurePrint G3 Human GE Microarray) and bisulfite treated DNAs were analyzed by quantitative Methylation Specific PCR to confirm the reproducibility of the Microarray data. Expression of mRNA expression was analyzed by qRT-PCR. Results were compared by Mann-Whitney U test.

Results: There were 8636 and 7392 2X hyper and hypomethylated genes respectively. We found 77 genes with decreased expression of their mRNA. The hypermethylated sites of 69 out of 77 genes are located up to -1000. Among these genes, TFAP2A, IREB2, BCL2L11, SPON3, IKBKB, HNRNPH3, DUSP4 and ASRGL1 were 8 significant genes in the hypermethylation. The hypermethylation of these genes affected their transcriptional levels.

Conclusion: These results indicate that DNA hypermethylation may be involved in transformation-related genes, thereby resulting in their decreased expression in oral epithelial cells stimulated with Arecoline.

アレコリンの長期刺激によるMMP-9の発現上昇

Upregulated expression of MMP-9 in gingival epithelial cells induced by prolonged stimulation with arecoline

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【目的】

南アジア, 東南アジアにおけるBetel quid (betel leaf, areca nutの種子, 消石灰と tobacco) を噛む習慣は, 口腔がんの原因として重要視されている。Betel quid が口腔がんを引き起こす機序として, areca nutと消石灰の副生成物であるアレコリンの発がん性と炎症惹起作用があげられているがその詳細については不明である。本研究は, アレコリンによる発がん作用の機序を解明するために, ヒト歯肉上皮前駆細胞(HGEP)にアレコリンを長期刺激し, MMP-9の発現を解析した。

【方法】

HGEPはEpithelial Culture MediumにArecoline hydrobromide (アレコリン) 50 μ g/ml添加および非添加を3日間毎に繰り返し, 1ヶ月間培養を行った。コントロールには超純水を添加したものをを用いた。それぞれRNAを抽出した後, SurePrint G3 Human GE Microarray 8x60K v2にて網羅的遺伝子解析を行い, 得られたデータから発現の上昇が著しく認められたMMP-9に着目し, その発現の再現性とMMP-9に関連するMMP-2, TIMP-1, TIMP-2の発現についても解析した。また, NF- κ B/I κ B inhibitor, MAPK kinase inhibitor, p38 MAP kinase inhibitor, STAT3 inhibitorを用いてMMP-9とそれぞれとの関連を検討した。

【結果】

18日目と30日目のMMPsとTIMPsの発現の再現性を定量RT-PCRにて検討したところ, MMP-9, TIMP-1, TIMP-2におけるmRNAの発現上昇は確認されなかったが, MMP-9mRNAの発現上昇が確認された。すべての阻害剤はアレコリン刺激によるMMP-9の発現を抑制した。

【結論】

Betel quidを噛む習慣によるMMP-9の発現上昇は口腔がんの発生機序の初期段階であることが示唆され, NF- κ B/I κ B, MAPK kinase, p38 MAP kinase, STAT3はMMP-9の発現の一部に関与している。

The present study examined whether MMP-9 was involved in Arecoline induced carcinogenesis. The culture of HGEP was repeated, alternating 3 days with Arecoline and 3 days without Arecoline for 1 month. We found an upregulated expression level of MMP-9 were significantly higher than in the control. To investigate the cellular pathway, we used NF- κ B/I κ B, MAPK kinase, p38 MAP kinase, STAT3. All inhibitor decreased the upregulated expression of MMP-9 induced by stimulation with arecoline. The activated MMP-9 may be involved in an initial stage of the transformation oral cancer and pre-cancerous lesions induced by betel quid chewing.

頭頸部扁平上皮癌由来細胞でのDKK3遺伝子強制発現の影響 Effects of DKK3 overexpression in head and neck squamous cell carcinoma-derived cells.

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【背景】発表者はこれまでに頭頸部扁平上皮癌（HNSCC）に特異的な癌関連遺伝子を検索し、DKK3 遺伝子に着目した。DKK familyは分泌型タンパクをコードし、細胞の癌化に関わるWnt signalを抑制するが、DKK3はこの機能がなく、本質的な機能は不明である一方、DKK3は種々の癌で発現が低下していることからREIC（reduced expression in immortalized cells）としても知られ、癌抑制遺伝子と考えられている。しかし、発表者のこれまでの研究ではDKK3はHNSCCの転移や浸潤を促進する可能性が示唆されている。本研究ではHNSCC由来細胞株でDKK3強制発現の影響を検討した。

【材料と方法】材料としてHSC-3細胞を用いた。DKK3発現プラスミドをトランスフェクションし、細胞の増殖、浸潤、遊走への影響を検討した。また、DKK3強制発現細胞をヌードマウス皮下に移植し、腫瘍形成能への影響を検討した。さらに、DKK3発現変化に伴うWnt signalへの影響をwestern blotting（WB）とTOP/FOP flash assayで検討した。

【結果】本実験系ではcontrolに比較してDKK3のタンパク発現、mRNA発現、分泌を有意に増加させることができた。DKK3強制発現の結果、細胞増殖、浸潤能、遊走能は全て有意に増加した。また、ヌードマウスへの移植では、DKK3強制発現群では有意に腫瘍サイズが増大し、ki-67 indexが高かった。Wnt signalへの影響では、Wnt target geneであるcyclin D1、c-mycの発現が有意に増加していたが、Reporter assayではTCF activityの増加は認められず、WBでも有意に変化するシグナルを同定できなかった。

【考察と結論】DKK3はHNSCCにおいては、細胞の増殖、浸潤、遊走を増強することが強く示唆された。DKK3発現増加により、cyclin D1、c-mycなどの遺伝子発現が増加するが、これはWnt/ β -catenin/TCFとは無関係の経路を介した現象であると考えられた。

DKK3 is believed to be tumor suppressor, because of its reduced expression in almost all kinds of malignancies. However, the previous researches strongly suggest that DKK3 might exert oncogenic function specifically in HNSCC. In the present research, DKK3 overexpression (DKK3-OE) model in HNSCC-derived cell line was established, and its effects on malignant property of the cancer cells were investigated. DKK3 overexpression resulted in significantly increased invasion and migration, and DKK3-OE cells showed significantly increased tumor growth both in vivo and in vitro. However, these were not caused by Wnt/ β -catenin pathway. Further investigation was needed to identify DKK3 pathway.

癌抑制型miRNA-Xは転移関連分子の制御を介して口腔扁平上皮癌の浸潤・転移を抑制する

Tumor-suppressive miRNA regulates metastasis of oral squamous cell carcinoma by targetting metastasis related molecule

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Background: The progression of metastasis cascade is a multistep and complicated process, frequently leading to a poor prognosis in cancer patients. Recently, growing evidence has indicated that deregulation of microRNAs (miRNAs) contributes to tumor progression in oral squamous cell carcinoma (OSCC). The purpose of this study was to investigate the functional significance of tumor-suppressive miRNA (TS-miR) in cancer cells and to identify novel miRNA-mediated cancer pathways and responsible genes in OSCC metastasis.

Methods: To identify miRNAs that regulate OSCC metastasis, we compared miRNA expression profiles between a parent OSCC cell line and a highly metastatic clone. Gain-of-function studies using TS-miR (miR-X) were performed to investigate cell proliferation, migration, invasion in two OSCC cell lines. The effect of miR-X on metastatic ability was assessed by orthotopic animal models. To identify target genes of miR-X, we utilised gene expression analysis and in silico database analysis. Loss-of-function assays were performed to investigate the functional significance of miR-X target genes.

Results: The miR-X was downregulated in the highly metastatic clone. Overexpression of miR-X in OSCC cell lines revealed significant inhibition of cancer cell migration and invasion. Moreover, miR-X overexpressing OSCC cells showed decreased lymph nodes incidence in vivo. Gene expression data and in silico analysis demonstrated that metastasis-related molecule (MRM) was candidate target of miR-X. Silencing of MRM genes significantly inhibited cell migration and invasion in cancer cells.

Conclusions: miR-X has a tumor-suppressing role in metastasis in OSCC, suggesting miR-X as a potential new diagnostic and therapeutic target for the treatment of OSCC.

口腔上皮内腫瘍（OIN）の病理診断を標準化するためのKi-67, CK13, CK17免疫組織化学染色の判定基準の提案

Our proposal of criteria for Ki-67, cytokeratin 13 and cytokeratin 17 immunohistochemistry in diagnosis of oral intraepithelial neoplasia (OIN)

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Ki-67, cytokeratin 13 (CK13) and CK17 immunoreactivity have been addressed to be useful for diagnosing oral intraepithelial neoplasia (OIN) in 'General Rules for Clinical and Pathological Studies on Oral Cancer (Japanese Society of Oral Oncology)'. However it does not contain the specific immunohistochemical criteria. Therefore, we designed a scoring system and assessed the scoring reproducibility and the diagnostic values.

Four pathologists graded epithelial dysplasia and immunoreactivity of 124 oral mucosal specimens. Interobserver agreement was tested using the kappa coefficient. Logistic regression analysis was performed to test the diagnostic value of different makers for high-grade dysplasia. Ki-67 immunoreactivity was scored as follows: 0, sporadic positive cells in the second basal layer; 1, equivocal; or 2, positive cells localized in the basal layer and/or in layers that are more superficial. CK13 was scored as follows: 0, strong expression; 1, equivocal; or 2, no expression. CK17 was scored as follows: 0, no expression; 1, equivocal; or 2, strong expression.

Low-grade and high-grade dysplasia were identified in 72 and 52 cases, respectively. Kappa values of Ki-67, CK13, and CK17 expression were 0.78-0.80. Ki-67 and CK13 expression were associated with high-grade dysplasia ($P = 0.003$ and 0.002 , respectively), while CK17 was not ($P = 0.33$).

Our scoring system is substantially reproducible. Ki-67 and CK13 are independent markers for high-grade dysplasia. Immunohistochemical criteria should be established immediately for the standardization of pathological diagnosis of OIN. We believe that our proposal should be one of the candidates.

基底細胞の異型は口腔異型上皮の癌化を予測する因子である：96症例に対する形態計測学的研究

Atypical Appearance of Basal Cells as a Prognostic Factor for Oral Epithelial Dysplasia: A Morphometrical Study of 96 Cases

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【Objective】 The aim of this study was to objectively assess the predictive value of the atypical appearance of the basal layer of oral epithelial dysplasia (OED) for development into invasive carcinoma.

【Study Design】 Ninety-six OED cases were examined. These cases were divided into two groups: 38 cases that developed into invasive carcinoma and 58 cases that did not. Furthermore, 12 histopathological factors were quantified morphometrically in each case and assessed by multivariate analysis.

【Results】 The standard deviation of the length between the apical membrane of the basal cells and the basement membrane was significantly associated with development of OED into invasive carcinoma.

【Conclusion】 We provided novel, objective data which demonstrated that an atypical appearance, especially the disordered arrangement of the basal cells representing loss of polarity, may be useful for predicting the development of OED into invasive carcinoma of the tongue.

Proteome profiling at the lateral interface of oral squamous cell carcinoma/carcinoma in-situ

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Oral squamous cell carcinoma (SCC) and carcinoma in-situ (CIS) frequently form lateral interfaces against normal or dysplastic epithelia (ND). At the interface where keratin (K) 17 positive (+) CIS/SCC cells are in contact with K13+ ND cells, there may be “cell competition” between two different cell types. The aim of this study was to examine protein expression profiles at the CIS/SCC-ND interface by proteome analysis. Screening tissue sections, 112 lateral interfaces including 55 CISs and 57 SCCs were collected. The interfaces were morphologically classified into three types: straight (47%), oblique (34%), and convex (19%). At the interfaces, apoptotic bodies (60%) and hyaline bodies (36%) were also emphasized in CIS/SCC sides. The results suggested that ND cells were rather winners of cell competition against CIS/SCC cells.

Then, the four segments were separately laser-microdissected from tissue sections that had been immunohistochemically stained for K13 or K17; the four segments included CIS/SCC away from (1) or adjacent to (2) the interface, ND adjacent to (3) or away from (4) the interface. Approximately 4000 and 2800 proteins were identified from CIS/SCC and ND sides respectively. Gene ontology analyses on identified proteins were carried out.

And then, we selected up to 24 proteins including ladinin-1, which were most specifically and contrastively increased or decreased in CIS/SCC or ND sides, respectively. Their specific immunohistochemical/immunofluorescent expressions were confirmed in tissue sections and cultured SCC cells. They may characterize the cellular crosstalk at the lateral interface and would be candidates for pathological distinction of oral malignancies.

口腔癌におけるPRMT5の発現検討 Analysis of PRMT5 expression in oral cancer

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Protein arginine methyltransferases (PRMTs) mediate the methylation of a number of protein substrates of arginine residues and serve critical functions in many cellular responses, including regeneration, cancer development, progression, and aggressiveness. PRMT5, a member of type II arginine methyltransferase, is frequently overexpressed in carcinomas of the lung, liver, pancreas, skin, breast, uterine cervix, etc. The aberrant expression of PRMT5 modulates the activities of NF- κ B or transcriptionally silence tumor suppressor genes, such as p53, E2F-1, and Rb. However, the expression of PRMT5 and its role in oral cancer has not been elucidated. In this study, we immunohistochemically examined the expression and localization of PRMT5 in oral squamous carcinoma and its precursors. Oral epithelial dysplasia (OED, n=8), oral intraepithelial neoplasia (OIN, n=1) and oral squamous cell carcinoma (OSCC, n=59) specimens, obtained from 69 patients who underwent oral cancer surgery at the Jichi Medical University Hospital between 2010 and 2015, were analyzed. Normal oral epithelium showed weak PRMT5 expression in cytoplasm, whereas OED, OIN and OSCC showed stronger PRMT5 expression in cytoplasm. A distinct PRMT5 expression pattern in both cytoplasm and nucleus was found at the invasive front in a subset of OSCC, especially in those of type 4 of Yamamoto-Kohama classification. Thus, PRMT5 may play a role in OSCC from its early stage of oncogenesis through its progression, regulating tumor aggressiveness at the invasive front.

A clinical and histopathological analysis of oral tongue cancer in young adults

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Between 2005 and 2014, 298 patients received treatment for carcinoma of the oral tongue at the Department of Oral Surgery, Saitama Cancer Center. In total, 26 of these patients (11 males, 15 females) were young adults <40 years. The mean age of these patients was 32 years, with a range of 21–39 years. Histopathologically, all cases were diagnosed as squamous cell carcinoma and were given a T classification as follows: T1, eight cases (30.8%); T2, 12 cases (46.2%); T3, four cases (15.4%); and T4, two cases (7.7%). Cervical lymph node metastasis was found in five cases (19.2%), with no cases showing distant metastasis. Eight patients were diagnosed with Stage I disease, 11 with Stage II, two with Stage III, and five with Stage IV disease. In terms of the histological grade, four cases were classified as Grade I, 21 as Grade II, one as Grade III, and the mode of invasion was YK-2 in three cases, YK-3 in seven cases, YK-4C in 15 cases, and YK-4D in one case. A combination of treatments, including surgery, was administered in two patients; surgery only was undertaken in 17 patients; radiotherapy only in two patients; and a combination of radiotherapy and chemotherapy in four patients. The 5-year survival rate was 72.6% for young adult patients and 66% for patients >40 years. There were no significant differences between age group and survival. The clinical appearance, stage, treatment, histopathological findings, and survival rate have been discussed.

舌扁平上皮癌T2N0症例における後発頸部リンパ節転移予測因子についての検討

A study of predictive factors for occult cervical lymph node metastasis of clinical T2N0 tongue squamous cell carcinoma

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Background: The prognostication of patient outcome is one of the greatest challenges in the management of early stage tongue squamous cell carcinoma (TSCC). Especially, it is important for TSCC to predict cervical lymph node metastasis, including occult metastasis, before operating. The aim of the present study was to investigate practical histopathologic parameters as predictive factors for cervical lymph node metastasis in preoperative SCC biopsy specimens.

Methods: A total 100 patients with TSCC clinically evaluated cT2N0 were enrolled in this study. All of them underwent surgical resection of primary lesion as primary therapy. We retrospectively investigated the predictive factors for occult cervical lymph node metastasis of TSCC evaluated as clinically cT2N0.

Results: Occult cervical lymph node metastases occurred in 18 of 100 patients. Patients with occult cervical lymph node metastases had significantly reduced 5-year disease-specific survival rate compared with those without (63.5% and 94.5%, $p < 0.001$). Moreover, occult cervical lymph node metastasis was associated with endophytic type of clinical growth pattern, YK-4C/D of mode of invasion, depth of invasion ($>5\text{mm}$), tumor invasion of muscular layer, and high expression of Podoplanin in univariate analysis. Multivariate analysis revealed that the depth of invasion was independently associated with the occult cervical lymph node metastases.

Conclusion: These results suggested that we should consider whether to perform elective neck dissection for patients with TSCC clinically evaluated as cT2N0 who has risk factors of occult cervical lymph node metastasis such as depth of invasion ($>5\text{mm}$).

角化嚢胞性歯原性腫瘍におけるメラニン沈着について Melanin pigmentation of Keratocystic Odontogenic Tumor

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【目的】皮膚や粘膜上皮には、神経提細胞を原基として生じるメラノサイトの存在が知られている。一方、歯胚の形成においても神経堤が大きく関わっているが、歯原性病変の発生における神経堤由来の細胞の消長についてはあまり分かっていない。

メラニンは骨組織内に発現することは無いといわれているが、顎骨内の歯原性腫瘍に稀にメラニン沈着が生じることがあると報告されている。

そこで、本研究では角化嚢胞性歯原性腫瘍でのメラニン沈着およびメラノサイトの有無を検索した。

【方法】愛知学院大学歯学部附属病院にて2005年から2014年に病理診断にて角化嚢胞性歯原性腫瘍と診断された79症例を対象とした。この中で12症例は基底細胞母斑症候群であった。また、年齢により0～20歳代の若年者群（42例）および30～70歳代の中高齢者群（37例）の2群に分けて検索した。メラニン沈着の確定にはシュモール反応染色を用いた。さらに、Melan-A免疫染色を用いてメラノサイトの有無を確認した。

【結果と考察】角化嚢胞性歯原性腫瘍では、30.4%（24/79例）でシュモール反応陽性像が確認された。また、基底細胞母斑症候群の症例では41.7%（5/12例）と高率にシュモール反応陽性像が認められた。さらに、年齢別に比較すると中高齢者群5.4%（2/37例）に対し、若年者群では52.3%（22/42例）とシュモール反応陽性像が高率にみられた。Melan-A陽性像は32.9%（26/79例）にみられ、基底母斑細胞症候群では50.0%（6/12例）と高い陽性率が認められた。さらに、年齢別に比較すると中高齢者群10.8%（4/37例）に対し、若年者群では52.3%（22/42例）とMelan-A陽性像が高率にみられた。

以上の結果より、基底細胞母斑症候群においてメラニン沈着やメラノサイトが高率に認められることが明らかになった。このことから、遺伝子変異の関与が示唆された。また、中高齢者群に対し若年者群で高率にメラニン沈着やメラノサイトが認められることから、角化嚢胞性歯原性腫瘍の発生の起源が、発症年齢により異なる可能性も考えられた。

The purpose of this study was to determine the distribution of melanin pigmentation and melanocyte of keratocystic odontogenic tumor (KCOT). Seventy-nine formalin-fixed and paraffin-embedded KCOT specimens, including 12 specimens were derived from basal cell nevus syndrome (BCNS) patients, were used. Melanin pigmentation and melanocyte were detected using Schmorl and MelanA staining, respectively.

In conclusion, BCNS showed high positive rate of Schmorl and MelanA staining, it seems that genetic alterations are involved in distribution of melanin pigmentation and melanocyte. MelanA positive rate was high in juvenile group. This suggests that the origin of KCOT in juvenile was different from elder one.

Elimination of *P.gingivalis*-infection by dental therapeutic intervention is beneficial impacts on non-alcoholic steatohepatitis progression.

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Non-alcoholic steatohepatitis (NASH) is a critical liver disease showing potential progression to liver cirrhosis and further liver cancer. Activation of hepatic stellate cell (HSC) plays important roles in pathological progression of NASH. TGF- β 1 is known as one of the key molecules for HSC-activation. Although we previously reported that odontogenic infection of *Porphyromonas gingivalis* (*P.gingivalis*) exacerbated inflammation and fibrosis in NASH, the effectiveness of dental therapeutic intervention for *P.gingivalis*-odontogenic infection induced pathological progression of NASH is unclear. In this study, therefore, we investigated effects of dental treatments on NASH progression, especially focusing on HSC-activation.

1) Fibrosis-relating markers like α -smooth muscle actin were significantly upregulated in human HSC with *P.gingivalis*-infection at MOI-100 and TGF β -1 stimulation. To investigate TGF- β 1 production, HSC and human hepatocyte were cultured with *P.gingivalis*-infection at MOI-100 with/without palmitate-treatment. *P.gingivalis*-infection upregulated TGF β -1 production, especially with palmitate-treatment, in HSC, indicating that TGF β -1 from both HSC and hepatocytes contributes to HSC-activation. 2) HSC was infected with *P.gingivalis* at MOI-100 and cultured for 5-Day. HSC-proliferation significantly increased with *P.gingivalis*-infection, especially under palmitate-treatment. 3) To evaluate the effectiveness of therapeutic intervention for NASH, 50 μ g/ml of azithromycin was applied into *P.gingivalis*-infected root canals of the High Fat Diet-induced NASH mouse model. After 3-week of the treatment, macrophage-foci/ infiltrating area and fibrosis areas were morphometrically analyzed. *P.gingivalis*-odontogenic infection drastically increased macrophage-foci (hepatic crown-like structures), macrophage-infiltrating and fibrosis areas, whereas dental intervention significantly reduced the pathological changes in the liver. Collectively, it is demonstrated that elimination of *P.gingivalis*-infection by dental therapeutic intervention is beneficial impacts on NASH progression.

学生演題 ポスター賞
Undergraduate Poster Award

骨外型/周辺型エナメル上皮腫の1例

A case of peripheral ameloblastoma

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顎骨外に発生するエナメル上皮腫は希であり, 全てのエナメル上皮腫の1.3~10%を占めるといわれている。今回我々は下顎前歯部歯肉に発生し, 肉眼的にエプーリス様の形態を示した骨外型/周辺型エナメル上皮腫の1例を経験したので報告する。

【症例】54歳, 男性。

【臨床経過】5, 6年前にかかりつけ歯科医院にて下顎左側前歯部の腫瘍形成を指摘されたが, 放置していたところ, 最近になって腫瘍が徐々に増大するのを自覚したため来院した。初診時, 下顎左側側切歯部から小白歯部にかけて大きさ16mm×14mmの大部分広基性, 一部有形性の無痛性腫瘍がみられた。左側中切歯から左側第1小白歯までの4歯はいずれも生活歯であったが, 側切歯の遠心には10mmのポケットが確認された。エックス線像では同部に垂直性骨吸収が認められたが, 腫瘍による骨破壊は観察されなかった。エプーリスの臨床診断下に腫瘍切除術が行われた。

【病理組織学的所見】粘膜上皮下において, 腫瘍組織の胞巣状あるいはシート状の増殖がみられ, 少数の胞巣は粘膜上皮と融合していた。腫瘍胞巣の最外層には内エナメル上皮細胞類似の高円柱状細胞が配列し, 胞巣内部では有棘細胞類似の細胞が密に配列し, 角化細胞も観察された。エナメル髄様構造はほとんど観察されなかったが, 一部の胞巣には嚢胞化が生じていた。

骨外型/周辺型エナメル上皮腫は口腔粘膜上皮から発生した基底細胞癌との鑑別が問題となる。本例では, 腫瘍胞巣内部で有棘細胞類似細胞が敷石状に配列し, 嚢胞化も起こっていることから基底細胞癌は否定できると思われた。

Peripheral ameloblastomas are rare odontogenic tumor originating outside bone. We report a case of peripheral ameloblastoma. The patient was a 54-year-old man who had a gingival tumor of left lower lateral incisor to premolar region. Clinically, epulis granulomatosa was suspected, and resected. Histopathological examination revealed submucosal proliferation of odontogenic epithelium forming nests and sheets, which were composed of stellate reticulum-like or squamous epithelial cells rimmed by columnar or cuboidal cells. In some parts, connections between the odontogenic epithelial islands and the mucosal epithelium were observed.

顎口腔領域のランゲルハンス細胞組織球症の病理組織学的検討 Pathological analysis of Langerhans cell histiocytosis in the maxillofacial region

上條 陽輝, 行森 茜, 坂本 啓

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ランゲルハンス細胞組織球症はランゲルハンス細胞が異常増殖をきたすまれな疾患である。小児に多く、単一臓器型と多臓器型に大きく分類される。単一臓器型の多くは骨病変であるが、顎骨に発生するものはまれである。近年、ランゲルハンス細胞組織球症の半数以上の症例でBRAF遺伝子の活性化変異（V600E）が報告されている。

われわれは顎口腔領域に発生し、好酸性肉芽腫、Histiocytosis Xあるいはランゲルハンス細胞組織球症などと診断された症例を収集し、病理組織学的な再検討と、免疫染色およびPCR-ダイレクトシーケンス法によるBRAF（V600E）変異の検討などを行い、その結果を報告する。

Langerhans cell histiocytosis is a rare proliferative disorder of Langerhans cells. It usually arises in children and is either unifocal or multifocal. The activating mutation of BRAF (V600E) has been discovered in more than half of Langerhans cell histiocytosis cases.

Here we report on the results of pathological analysis of Langerhans cell histiocytosis in the maxillofacial region. We collected biopsy specimens of Langerhans cell histiocytosis and conducted pathological reevaluation including the investigation on BRAF(V600E) mutation by PCR-direct sequencing and immunohistochemistry.

口腔扁平上皮癌におけるPeriostinスプライシングバリエーションの新たな役割

Novel role of Periostin splicing variants in oral squamous cell carcinoma

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Periostin is a component of extracellular matrix produced by normal and cancer associated fibroblast. Several reports showed the correlation between Periostin overexpression and malignant behaviors. Previously, we identified Periostin as a novel tumor invasion regulating factor in oral squamous cell carcinoma (OSCC) and reported that Periostin promoted metastasis via accelerating invasion, lymphangiogenesis and angiogenesis. Recently, we found that some OSCC cell lines with EMT (Epithelial Mesenchymal Transition) phenotype overexpressed Periostin. Moreover, we found that Periostin expression was induced by TGF β in OSCC cell lines without EMT phenotype. Recently, it has shown that nine splicing variants of Periostin, but their roles remain unclear. Therefore, we analyzed the expression pattern of these splicing variants. We found that Periostin induced by TGF β exclusively expressed variant 3 and 6. Now, we are interesting the detailed role of these variants in the development of OSCC.

Bovine lactoferrin attenuates bone invasion of oral squamous cell carcinoma

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[Introduction]

Oral squamous cell carcinoma (OSCC) shows highly malignant behaviors including bone invasion. The inhibition of bone invasion has beneficial impact on controlling OSCC patients.

Lactoferrin (LF) was reported to have anti-tumor-bioactivity in various cancers. However, effects of LF on OSCC are not clearly elucidated.

[Purpose]

Therefore we aimed to clarify effects of LF and its underlying mechanism on OSCC induced bone invasion.

[Material and Methods]

In vivo, we examined effects of oral administration of liposomal LF (LLF) on tumor progression, number of osteoclasts, and expression of osteoclastogenesis-related molecules; IL-1 β and RANKL in a murin OSCC model with micro-CT and histopathological observation.

In vitro, we investigated effects of LF on expression of IL-1 β and RANKL in OSCC cells and its intracellular mechanism using RT-PCR, western blotting, and ELISA. Effects of LF on osteoclastogenesis was investigated by a co-culture model of bone marrow and OSCC cells.

[Results]

In vivo: LLF significantly decreased tumor size, reduced osteoclastic bone destruction of zygoma and mandible, and suppressed expression of IL-1 β and RANKL in the murin model.

In vitro: LF downregulated mRNA expression of IL-1 β , RANKL and IL-1 β -induced IL-1 β and production of RANKL by OSCC cells, to attenuate osteoclast differentiation. Suppression of polyubiquitination of TNF receptor-associated factor 6 through endocytosis of LF, indicating downregulation of IL-1 β and RANKL through suppression of NF- κ B and MAPK pathways.

[Conclusions]

LF suppresses OSCC induced bone invasion via inhibition of tumor-proliferation and osteoclastogenesis-related-molecule productions.

We suggest that LF could be used as a preventive and supplemented agent for controlling OSCC.

Oncogenic Role of Tissue Inhibitor Metalloproteinase-1, TIMP-1, through Regulation of YAP in HNSCC

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AIM: Tissue inhibitors of metalloproteinase-1 (TIMP-1) inhibits the degradation of extracellular matrix regulated by matrix metalloproteinases (MMP). Both MMP and TIMP-1 are highly expressed in head and neck squamous cell carcinoma (HNSCC), and TIMP-1 accelerates cell proliferation through its receptor CD63. However, this oncogenic role of TIMP-1 is still unclear. Yes-Associated Protein (YAP) enhances transcription of specific genes related to cell proliferation, such as CTGF or Cyr61. Using Oncomine data base analysis, TIMP-1 was highly expressed associated with YAP-associated genes in HNSCC. Hence, we hypothesized that TIMP-1 might regulate YAP in HNSCC. Therefore, this research aims to reveal an oncogenic role of TIMP-1 through regulation of novel downstream YAP in HNSCC.

Materials and Methods: HNSCC cell lines (HSC-2, 3, 4 and KOSCC33A) and human embryonic kidney (HEK293) cells were used. Expressing or shRNA plasmids were transfected, and stable clones were analyzed by western blot, RT-PCR, Real time-PCR and proliferation assay. Data was evaluated by student's t-test with significant level set at $P < 0.05$.

Results: TIMP-1, YAP and CTGF expression were correlated among HNSCC cell lines. Stable overexpression or recombinant TIMP-1 induced YAP activation, CTGF expression and cell proliferation. In contrast, stable TIMP-1 knockdown inactivated YAP and inhibited proliferation. Furthermore, stable CD63 knockdown inactivated YAP despite triggered by TIMP-1.

Conclusion: I revealed that TIMP-1 played an oncogenic role in HNSCC through regulation of YAP. TIMP-1 or its new downstream YAP will be beneficial for the invention of a therapeutic treatment of HNSCC.

前癌病変および口腔癌セッション

Oral Premalignant and Malignant Lesions

Chair : Prof. Takashi Inoue (*Department of Clinical Pathophyiology, Oral Health Science Center, Tokyo Dental College*)

第3日
8月12日(金)
Friday, 12th August

前癌病変および口腔癌セッション
Oral Premalignant and Malignant Lesions

大会場 9:00~9:40
Main Hall 9:00~9:40



W M Tilakaratne

Oral Pathology, Faculty of Dental Sciences University of Peradeniya

W M Tilakaratne BDS, MS, FDSRCS, FRCPath, PhD is the Dean and Chair Professor of Oral Pathology, Faculty of Dental Sciences University of Peradeniya, Sri Lanka. His main research interests are molecular Pathology of oral cancer and precancer especially oral submucous fibrosis, diagnostic histopathology of oral lesions, especially salivary and odontogenic tumours. Professor Tilakaratne has worked as the Professor of Oral Pathology, Queen Mary University of London, visiting Professor to University of Otago New Zealand, University of Niigata Japan and University of Malaya, Malaysia. He is a founder member of the Asian Society of Oral and Maxillofacial Pathology and IAOP councilor for Asia (2008-2012). He is presently the President-Elect of the International Association of Oral Pathologists. Professor Tilakaratne has been an associate editor or editorial board member in more than eight international journals. He has contributed to more than 110 peer-reviewed publications and 15 book chapters internationally published books. He has also published a text book on Oral Pathology and Medicine. He is a member of different national committees on research and development on health.

Grading oral Epithelial Dysplasia

According to Ancient Greek “dysplasia” is a word formed by the combination of “dys” referring to “bad” and “plasia” referring to “formation”. Scientifically epithelial dysplasia is described as an anomaly of growth, produced by abnormal or atypical epithelial proliferation resulting in a lesion with disturbed differentiation and maturation. Epithelial dysplasia is a microscopic diagnosis made based on individual cellular features referred to as atypia and architectural changes observed. Accordingly, the term epithelial dysplasia is applied to a lesion in which part or full thickness of the epithelium is replaced by cells showing varying degrees of cellular atypia.

The risk of epithelial dysplasia transforming into carcinoma was first reported by Richart and Barron in 1969. Their evidence was based on follow up studies of cervical “pre-malignant” lesions. This publication aroused an interest in similar potentially malignant disorders (PMD) of the oral cavity with oral epithelial dysplasia (OED). With time, it was noted that PMDs of the oral cavity with dysplasia, more frequently transformed into carcinomas than the lesions without dysplasia. In addition, PMDs and OED were seen in the mucosa surrounding invasive oral squamous cell carcinomas (OSCC). These features supported the possibility of malignant transformation of OED, and promoted investigators to assess epithelial dysplasia associated with PMDs and malignant transformation rate.

In the management of epithelial dysplasia classification to different grades was a key historic event. The initial grading system for epithelial dysplasia based on morphological changes, extent and distribution of atypical features, was proposed for cervical epithelial dysplasia in the late 1950s. Smith and Pindborg (1969) are credited for initiating a grading system for oral epithelium by applying the same criteria as used for cervical dysplasia, resulting in the photographic method of OED grading. Subsequently, approximately 15 OED grading systems including Smith and Pindborg’s photographic method have been developed and applied with varying degrees of success.

Any successful OED grading system should be clinically relevant in terms of utilizing the grading in management of the case by identifying the lesions that require treatment, be that surgical or non-surgical, and lesions that might fall into a “wait and watch” category. Secondly, It should be reproducible, minimizing intra- and inter- examiner variability. Finally it should be biologically significant by identifying the lesions that are likely to undergo malignant transformation

At present OED is diagnosed and graded utilizing the criteria proposed by World health organization (WHO) in 2005. The WHO 2005, OED grading is regarded as the “gold standard” that is routinely used to manage and predict the malignant transformation of oral potentially malignant disorders. However, even this grading is not consistently reliable and fails to fulfil the three essential criteria mentioned above. Hence the development of a perfect histopathological OED grading is an achievement that one should aspire to, and pursue. Many publications over the last 50 years have studied different surgical and non-surgical management strategies for lesions with OED. Unfortunately, they produced inconsistent results which could not be used in formulating guidelines for the management of OED. New WHO publication due to be published in the near future has addressed some of the issues mentioned above.



Rosnah Binti Zain

Oral Cancer Research and Coordinating Centre & Department of Oral and Maxillofacial Clinical Sciences, Faculty of Dentistry, University of Malaya.

Rosnah Zain is a Professor in the field of Oral Pathology and Oral Medicine at the University of Malaya. She has served as Head of her discipline and was involved in faculty undergraduate and postgraduate dental curriculum, research and service development in the capacity of Deputy Dean and Dean (2004 until June 2014). Among her major research endeavors is a collaborative research project with colleagues from Aichi Gakuin University, Japan and the Oral Health Division, Ministry of Health Malaysia, which is a Malaysian nationwide survey on the prevalence of oral mucosal lesions, which produced the first population-based prevalence data on oral cancer and precancer in the country. She had also initiated the Malaysian Oral Cancer Database and Tumour Bank System (a top-down government funding), linking data and tissue providers, researchers of different disciplines, thus leading to research on oral cancer in Malaysia shifting from individual/group research to the 'team science' approach. She is currently involved with collaborative studies on Oral Mucosal Lesions in particular Oral Potentially Malignant Disorders (OPMD) involving the Asian countries. These studies include initiating early diagnosis programmes in Cambodia using Conventional Oral Examination (COE); and exploring the potential use of other adjunct tools for early diagnosis of oral cancer with India, Indonesia and Taiwan. She has published widely with her main area of research being oral mucosal lesions and oral cancer. Currently, her research interest centres on ensuring standardization and training of diagnostic criteria for Oral Mucosal Lesions in particular Oral Potentially Malignant Disorders and Oral Malignancies to achieve a better understanding of such conditions among health professionals and researchers in the Asia-Pacific region.

Proliferative Verrucous Leukoplakia – An Overview

Proliferative Verrucous Leukoplakia (PVL) is an aggressive multifocal leukoplakia in the oral cavity, which is progressive and exhibits a high propensity for recurrence and progression to malignancy. First described by Hansen et al. in 1985, PVL appears initially as a simple hyperkeratosis, that tends to spread thereby becoming multifocal which over time develops verrucous hyperplasia, papillary variant of squamous cell carcinoma and/or conventional squamous cell carcinoma /or verrucous carcinoma within it. The progressive epithelial changes to a carcinoma associated with PVL is seen in lesions histologically diagnosed as 'verrucous hyperplasia' (usual clinical provisional diagnosis of Verrucous Leukoplakia). However, malignant transformation of PVL may also occur in clinically flat leukoplakias with or without dysplasia. Few audits and a recent systematic review on PVL reported a malignant transformation rate of more than 60% and a recurrence rate of more than 70%. Many have also described PVL as a condition in those with no tobacco habits whilst it has also been shown to be associated in patients with betel quid chewing habits. There is therefore the need to recognize early lesions of PVL which can be very challenging as the clinical and pathologic features of early lesions in PVL may overlap with conventional multifocal leukoplakias. This lecture will present an overview of the literature on the current status of PVL and the diagnostic difficulties of using the current criteria through case-based presentations of selected PVL/PVL- like conditions especially in situations of inadequate/no data on the early lesions.

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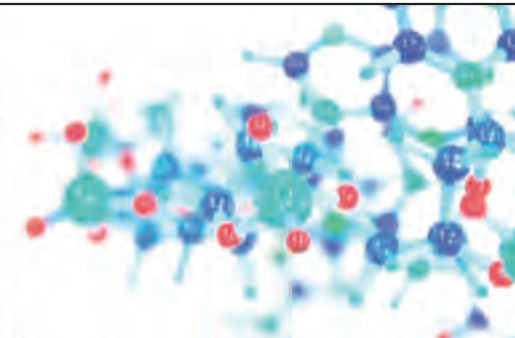
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歯科における くすりの使い方 2015-2018

〈編集委員〉

金子明寛(東海大学医学部) 須田英明(東京医科歯科大学歯学部)
佐野公人(日本歯科大学新潟生命歯学部) 柴原孝彦(東京歯科大学)
川辺良一(大船中央病院)

手にとりたくなる、歯科医のための「くすりの辞典」です。

歯科医師に長年支持され、読まれている『歯科におけるくすりの使い方』。2015-2018版は、さらに進化して、質・量とも大幅にアップ。医科治療ガイドラインと歯科治療、抗菌化学療法の実践、鎮痛薬・抗炎症薬、局所麻酔薬他、新たに口腔保湿剤、薬品一覧に適應症を追加。歯科にかかわるくすりの情報満載で、若手からベテランの歯科医師まで必携の1冊。



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口腔の生理から?を解く

〈監修〉森本 俊文(大阪大学名誉教授)

イラストで見る口腔生理学

『月刊デンタルダイヤモンド』に2年にわたって連載され、好評を博した「口腔の生理から?を解く」を1冊にまとめた。連載分以外にも新テーマやコラムを追加し、口腔の生理に関する事象を「どうして?」の視点からリアルなイラストで表現。「なるほど!」となすける新たな発見・理解を提供する。

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新・口腔の生理から?を解く

〈監修〉森本 俊文(大阪大学名誉教授)

ロングセラー、待望の第2弾が発売!

2007年に刊行し好評を博した『口腔の生理から?を解く』の第2弾。新聞やインターネットなどのメディアでは、歯や口についての医学的な記事が増え続け、社会的に口の動きに関心が高まり、研究面の進歩もみられる。こうした背景から、第2弾は、前書では深く触れていない問題も含めて解説している。口腔生理学の立場から図を用いて視覚による理解を重視した構成は、踏襲。

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JSOP 企画委員会指定セッション

Session Organized by JSOP Planning Committee

Chair : Prof. Hitoshi Nagatsuka (*Department of Oral Pathology and Medicine, Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama University*)

Prof. Katsutoshi Kubo (*Department of Oral Pathology, School of Dentistry, Aichi Gakuin University*)

第3日
8月12日(金)
Friday, 12th August

JSOP 企画委員会指定セッション
Session Organized by JSOP Planning Committee

大会場 9:40~10:40
Main Hall 9:40~10:40



Kou Kayamori

Department of Oral Pathology, Graduate School of Medical and
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略歴:

2005年3月: 東京医科歯科大学歯学部歯学科 卒業
2009年3月: 東京医科歯科大学大学院医歯学総合研究科博士課程 修了(歯学博士)
2009年4月: 東京医科歯科大学歯学部附属病院検査部 医員
2011年5月: 青梅市立総合病院病理診断科 医員
2012年4月: 青梅市立総合病院病理診断科 医長
2013年4月: 東京医科歯科大学大学院医歯学総合研究科口腔病理学分野 助教
現在に至る

(資格)

日本病理学会認定口腔病理専門医・指導医

Current Issue of Diagnostic Criteria for Oral Cancer

In Japan, approximately 7,000-8,000 new oral cavity cancer patients are diagnosed and the number of patients has been increasing. Most frequent malignancy is histologically, squamous cell carcinoma (SCC). Many oral SCCs are preceded by potentially malignant lesions, which clinically appear as white or red patchy lesions, known as leukoplakia and erythroplakia, respectively. At present, the standard procedure to assess these potential malignant lesions is microscopic evaluation of these sections for the presence of cellular and structural atypia, commonly referred to as 'dysplasia'. According to 2005 WHO classification, the oral dysplasia and related lesions are histologically graded as mild, moderate and severe dysplasia and carcinoma in situ, which defined in the same way as uterine cervical lesions. The SIN (Squamous Intraepithelial Neoplasia) classification can be considered synonymous except for SIN 3 that includes severe dysplasia and carcinoma in situ. But this grading system contains a feature that will give rise to inconsistency because the evaluation of these lesions is subjective and considerable inter- and intra-observer variations exist. Another issue that we have to consider is the uniqueness of oral epithelial dysplasia, in which architectural and cytological atypia are limited to the lower/middle third of the epithelium in most cases with surface epithelium showing well differentiation without atypia. WHO grading system tends to underestimate the risk of malignancy in such lesions. On the grounds of these problems, the General rules for Clinical and pathological Studies on Head and Neck cancer (5th edition, 2012) and Oral Cancer (1st edition, 2010) adopted original terminologies and disease concepts for precancerous lesions, such as Low/High grade dysplasia and Oral Intraepithelial Neoplasm (OIN), respectively. As a consequence, pathological diagnoses have been made following these different rules at each situation, which arouse confusion and misunderstanding between clinicians and pathologists that may have resulted in inappropriate patient treatment. The questionnaire survey conducted by the Committee of Diagnostic Criteria of Oral Cancer, The Japanese Society of Oral Pathology (in 2016) revealed that some facilities use the original diagnostic term, especially, for precancerous lesion or carcinoma in situ. Interestingly, it was also clarified that the classifications or General rules used for diagnosis in oral lesions are varied among general and oral pathologists.

In this symposium, I will present the current issues of diagnostic criteria for Oral cancer as described above, and the importance of the standardization of terminology and disease concepts.

第3日
8月12日(金)
Friday, 12th August



柳下 寿郎 Hisao Yagishita

日本歯科大学附属病院 歯科放射線口腔病理診断科
Division of Oral Diagnosis, Dental and Maxillofacial Radiology and Oral
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略歴：

1989.03	日本歯科大学歯学部 卒業
1993.03	日本歯科大学大学院歯学研究科 修了
1993.04	日本歯科大学歯学部病理学教室 助手
1998. 4	日本歯科大学歯学部病理学教室 講師
1998.10-2004. 8	東邦大学医学部第一病理学講座 非常勤研究員
2004.08	埼玉県立がんセンター病理科 非常勤研究員
2004.10	日本歯科大学歯学部病理学講座 准教授
2005.10	日本歯科大学附属病院口腔病理診断室 異動
2012.04	日本歯科大学附属病院歯科放射線・口腔病理診断科 科長
2014.12.01	東京医科歯科大学非常勤講師
2015.04.01	東邦大学医学部客員講師
2016.04.01	日本歯科大学附属病院 歯科放射線・口腔病理診断科 教授

免疫染色等で行われている診断の均霑化への試み

病理組織標本を診断する際には、HE組織観察が重要であることは論を俟ちません。表在性病変である口腔上皮内腫瘍／上皮内癌（OIN/CIS）や口腔上皮性異形成（OED）に対しても同様ですが、HE標本だけでは腫瘍性か非腫瘍性かを判定しきれない症例に遭遇することも少なくありません。本発表では当院での舌OIN/CISを精度高く診断するための試みをご紹介しますと思います。

当院では、口腔病態像を重要視しています。硬結の触れない表面性状均一な白板病変なのか、白斑紅斑の混在する病変なのか、癌を疑う白色病変なのか、ヨード不染域がみられる病変なのか。これらの情報を予め臨床から入手し、病理組織像で迷った際に参考にしています。病理組織学的には必ずHE標本と免疫染色（CK13, CK17, p53, Ki-67を基本セットとして）を併用し、当該病変がOIN/CISとすべきか、OEDとすべきなのかを、適切に診断出来るよう努めています。

免疫染色像における観察ポイントとして、1）周囲粘膜上皮との境界形成の有無：CK13及びCK17で明確に描出されることがあります。特にCK13では、その境界形成が明確に現れる傾向にあります。またKi-67やp53の陽性核の出現パターン（領域性を有して陽性核が局在もしくは消失）でも明確となることがあります。2）基底・傍基底細胞の極性の乱れ、腫大核等の異型細胞の出現の有無：これはKi-67陽性核の分布状態、腫大陽性核の出現、核小体の腫大化／明瞭化などの所見として把握することができ、それらの所見がみられるとOIN/CISを簡単に否定しえなくなります。その他、上皮層内の核密度の増大、上皮釘脚の涙滴状増殖あるいは下方への圧迫増殖等の所見は、OIN/CISである可能性をより一層高めます。このようにHE標本と免疫染色を、総合的に観察してOIN/CISを診断しております。そして、OINと診断しえない症例をOEDとして診断します。以上より、舌表在性病変の診断均てん化には、OIN/CISの診断基準の明確化が不可欠であり、そのためにはHE標本と免疫染色を併用することが重要であると考えています。

Uniform accessibility of pathological diagnosis using immunostaining

We evaluate HE specimens for morphological changes in the nuclei and cells and structural changes along the entire lesions and accordingly provide a pathological diagnosis for these lesions. However, it may be difficult to obtain a diagnosis using HE specimens alone. Therefore, it is necessary to use immunostaining as an additional diagnostic measure to support the findings from HE staining. In this presentation, I describe our routine method for the pathological diagnosis of superficial lesions of the tongue, using both HE specimens and immunostaining. I believe that evaluating the possibility of oral intraepithelial neoplasia (OIN)/carcinoma in situ (CIS) is important when diagnosing superficial lesions of the tongue. I will highlight an important point with regard to the diagnosis of OIN/CIS using immunostaining. Initially, we use CK13 and CK17 to detect the front formation with the neighboring mucosal epithelium. In addition, we may also identify positive immunostaining for Ki-67 and p53 in the nucleus. Subsequently, we investigate the distribution and appearance of enlarged Ki-67-positive nuclei. This finding is useful in assessing whether basal/parabasal cells exhibit atypia and a loss of polarity. Finally, based on the findings from HE specimens and immunostaining, we are able to provide a pathological diagnosis for the lesion being examined. If a lesion cannot be diagnosed as OIN, it is then diagnosed as OED.

第3日
8月12日(金)
Friday, 12th August



森 泰昌 Taisuke Mori

国立がん研究センター中央病院 病理・臨床検査科
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略歴

学歴

1995年 東京歯科大学 卒業
2004年 慶應義塾大学 大学院医学研究科修了 博士（医学）

職歴

1995年～2000年 慶應義塾大学医学部歯科・口腔外科学教室 研修医・専修医
1998年～2000年 清水市立病院（現 静岡市立清水病院）口腔外科 医員
2004年～2010年 慶應義塾大学医学部病理学教室 助教
2008年～2010年 米国スタンフォード大学医学部幹細胞再生医学研究所
Irving L. Weissman Lab.
2010年～現在 国立がん研究センター中央病院 病理・臨床検査科 医員
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資格等

日本病理学会口腔病理専門医・研修指導医，学術評議員
日本臨床細胞学会細胞診歯科専門医・教育研修指導医
日本臨床口腔病理学会 評議員・診断基準検討委員
日本口腔腫瘍学会口腔癌取り扱い規約検討委員
日本頭頸部癌学会頭頸部癌取り扱い規約委員

シンポジウム「口腔癌診断の均霑化を目指して」 ゲノム診断等を含めた今後の展望と試み

口腔扁平上皮癌（OSCC）は喫煙・アルコール摂取や高リスク群のヒトパピローマウイルスによる感染がその要因とされている。またOSCCは先行して存在する異型病変からしばしば発症する。これらの異型病変には異形成と反応性や再生性異型上皮が含まれている。異形成の診断は一定の均てん化された解釈に拠っていないため、現状ではスペクトラムである異型病変は臨床的要因を含め様々な解釈により分類されている。

次世代シーケンサー（NGS）によるハイスループットな遺伝子情報は、口腔がんを含めそのバイオロジーの解析に大きな変化を来してきている。NGS解析データと臨床病理学的が結びついた情報は異型病変質的診断の確度を大きく高めるのに役立つと考えられる。さらに癌に高頻度に変異を来す（TP53等）単一遺伝子をパラフィンセクション由来のサンプルを用いて行うゲノム全領域シーケンス技術は、腫瘍の特質と腫瘍発生・増殖における不均一性の理解の助けとなる。本シンポジウムでは、我々のNGSを用いた取り組みと異型病変からOSCCと病理学的に診断された検体のその解析データを供覧する。

Challenges for the application of genome sequence in the spectrum of oral dysplastic lesions and squamous cell carcinoma.

Oral Squamous cell carcinoma (OSCC) is caused by tobacco and alcohol consumption and infection with high-risk type of human papilloma virus. Oral SCC often develops from preexisting dysplastic lesion. Differential diagnosis of dysplastic lesion includes reactive or regenerative squamous epithelium. The diagnostic features of dysplasia are not uniformly accepted or interpreted. So far the spectrum of dysplastic lesion is divided for practical reasons.

Next generation sequencing (NGS) of genetic information of cancer cells has revolutionized the field of cancer biology, including oral cancer. Combining the information gained through NGS studies with clinico-pathological data will help diagnose the characteristics of dysplastic lesion with greater accuracy. Furthermore, single molecule (e.g. TP53) full coverage sequencing with formalin fixed paraffin embed tissue technology will support understanding the heterogeneity of tumor development and its nature. Here we show the experimental NGS analysis data with pathological diagnosis of OSCC and dysplastic lesions.

第3日
8月12日(金)
Friday, 12th August



長塚 仁 Hitoshi Nagatsuka

岡山大学大学院医歯薬学総合研究科 口腔病理学分野
Department of Oral Pathology and Medicine, Graduate School of Medicine,
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略歴

1987年3月	岡山大学歯学部 卒業
1991年3月	岡山大学大学院歯学研究科 修了（歯学博士）
1991年4月	岡山大学歯学部口腔病理学講座 助手
1993年9月	岡山大学歯学部口腔病理学講座 助教授 岡山大学歯学部附属病院 臨床検査室（病理）副室長
1998-1999年	ニューヨーク大学留学 文部省在外研究員
2008年11月	岡山大学大学院医歯薬学総合研究科 口腔病理学分野 教授
併任：	岡山大学病院病理診断科口腔病理部門長

日本臨床口腔病理学会常任理事，口腔癌診断基準検討委員会委員長

日本口腔腫瘍学会口腔癌取扱い規約検討委員会委員，日本病理学会癌取扱い規約委員

口腔癌診断の均霑化を目指して 口腔癌診断の均霑化—口腔癌取扱い規約改訂の観点から

国際的な視点からは、口腔癌とその境界病変の病理診断に用いる用語や定義は、UICC分類（2009）とWHO国際分類（2005）が基本となる。本邦では口腔に関してUICC分類やWHO分類に、部位特異性を加味した口腔癌取扱い規約第1版(2010)、頭頸部癌取扱い規約第5版（2012）が使用されている。日本臨床口腔病理学会では、理事長の諮問委員会として「口腔癌診断基準検討準備委員会」を立ち上げ、複数の診断基準について統一的な基準を検討する必要性について答申した。この答申を受け、「口腔癌診断基準検討委員会」が組織され、病理診断基準の統一化に向けた方向性を提言していくことになった。本委員会は、日本口腔腫瘍学会、特に口腔癌取扱い規約検討委員会と密接に連携し、口腔癌取扱い規約の改定に関わることとなる。取扱い規約は扁平上皮癌に主眼をおいており、浸潤癌に関しては大きな議論とはなっていない。しかし、Tis癌と良悪の境界病変については、WHO分類について多くの問題点が提起されてきた背景がある。本邦の2つの規約では、その問題点を反映して新たな知見を加え、独自の用語や疾患概念を取り入れた。本委員会が行った病理医、口腔病理医に対するアンケート調査では、複数の規約や分類による病理診断により施設間での病理診断の不統一がもたらされている現状が明らかとなった。このような状況は、臨床の現場や国内・国際的ながん統計の面でも問題を引き起こす可能性がある。口腔癌における診断の標準化をすすめるにあたっては、病理組織学的な診断精度の向上とその診断を臨床の現場や他施設を含め、国際的にも提示し、共有するという2つの課題が存在する。診断精度の向上については、口腔癌の診断技術の向上と、口腔癌の特性を理解した病理・口腔病理医の育成が必須である。規約は診断の共有の役割を担う基本的な概念を示すものであり、標準化の基礎となる部分と考えられる。日本病理学会においても癌取扱い規約委員会を中心に、日本癌治療学会と協同して、「統括癌取扱い規約」の策定を目標に検討を行っている。その中では、病理学的な用語や記載順の統一も含まれることとなる。口腔癌取扱い規約の改訂についても、予定されているUICC分類とWHO分類の改定を視野に入れながら、複数の学会と共同して共通のフォーマットに基づくルール作りが必要となる。

日本臨床口腔病理学会 口腔癌診断基準検討委員会:長塚 仁(委員長), 小川郁子(副委員長), 栢森 高, 岸野万伸, 草深公秀, 久保勝俊, 佐藤由紀子, 橋本和彦, 松本直行, 丸山 智, 森 泰昌, 柳下寿郎

Standardization of pathological diagnosis in oral cancer

Internationally, the terms and definitions used in the pathological diagnosis of oral cancer and precancerous lesion, are based on UICC classification (2009) and WHO classification (2005). In Japan, General Rules for Clinical and Pathological Studies on Oral Cancer (1st ed) and General Rules for Clinical Studies on Head and Neck Cancer (5th ed) are using. The Japanese Society of Oral Pathology established "The Committee of Diagnostic Criteria for Oral Cancers" for the standardization of diagnosis in oral cancer. This committee will discuss for revision of "General Rules for Clinical and Pathological Studies on Oral Cancer", cooperating with Japan Society of Oral Oncology, and especially General Rules for Clinical and Pathological Studies on Oral Cancer Committee. WHO classification raised many problems derived from the description of precancerous lesion or Tis cancer. So these two Japanese General Rules reflected these problems, and improved. The questionnaire investigation for general or oral pathologists made by this committee revealed that there were the disunity of diagnosis between institutions by using multiple General Rules and definition. These situations may make some misunderstanding in clinical practice or in cancer statistics between national and international. When we promote the standardization of diagnosis in oral cancer, improvement in diagnosis is essential. It is essential for improvement in diagnosis to cultivate pathologist or oral pathologist who understand the property of oral cancer. And also to share the standardization concept of diagnosis in the clinical sites and between other facilities is essential. Thus, The Japanese Society of Pathology has examined the development of "The General Rules for Cancer" in cooperation with Japan Society of Clinical Oncology. In the revision of General Rules for Oral Cancer, we need to make the General Rule based on the common format considering the revision of UICC classification or WHO classification in cooperation with multiple society.



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症例検討 その他の頭頸部病変 1

Case/Slide Seminar: Other Diseases of Head and Neck Region 1

Chair : Prof. Ming Zhong (*Department of Oral Pathology, College of Stomatology, China Medical University*)

Dr. Makoto Urano (*Department of Diagnostic Pathology, Fujita Health University, School of Medicine*)

An autopsy case of a tongue root tumor

Makoto Urano and Makoto Kuroda

Department of Diagnostic Pathology, Fujita Health University, School of Medicine

The patient is a 66-year-old male. He was in post-status of renal transplantation due to chronic renal failure and was chronic hepatitis C positive. He died of infectious endocarditis and sepsis, and autopsy was performed.

At the autopsy, we incidentally detected a tumor arising in the tongue root. No lymph node and no distant metastasis were confirmed.

The cut surface of the tumor showed a relatively well demarcated solid lesion with whitish color, 15×10mm in size. The tumor was a circumscribed but unencapsulated submucosal lesion with microcysts formation.

Histologically, the tumor cells were arranged in microglandular, trabecular, cribriform, glomeruloid and solid-nested patterns with clear to eosinophilic cytoplasm, and they had cleaved and crescentic shaped nuclei with ground-glass chromatin and nuclear grooves. In some area of the tumor, the tubules formed large dilated glands. In the periphery of the lesion, the tumor haphazardly invaded to the adjacent muscular tissue. Mitoses were rare and we didn't see any necrosis nor lymphovascular invasion. A few psammoma bodies were identified in the tumor.

In IHC, the tumor cells were diffusely positive for CK7, S-100 and vimentin. While the tumor cells were negative for smooth muscle actin, GFAP, caldesmon, p63, thyroglobulin and TTF-1. Ki-67 labeling index was low, indicating 2.7%. There was no overt pathological change or no neoplastic lesion in the thyroid gland of this patient obtained by autopsy.

Tumor of the palate

Hiroshi Harada

Department of Diagnostic Pathology, Seichokai Fuchu Hospital

The patient was an 84 year-old Japanese male. He visited a regional general hospital with complaint of palatal swelling persistent for several years and was referred to a neighbor university hospital after biopsy of the palatal mass. Preliminary diagnosis in the previous hospital was “adenoid cystic carcinoma suspected”. The tumor formed a relatively well circumscribed mass lesion associated with obvious bone destruction and reached to submucosa of the maxillary sinus. Surgical resection including surrounding tissues was performed. No symptom of recurrence or metastasis has been found for half a year. Histopathologically, tumor cells generally possessed bland and uniform nuclei and moderate to rich eosinophilic cytoplasm, and were arranged in tubular, trabecular, cribriform and follicular-like patterns. Ducts were occasionally stratified, but overt biphasic feature was not confirmed. Papillary and glomerular-like patterns were noted focally. Only a few mitotic figures were seen, but not necrosis. Stroma represented remarkable hyalinization as well as focal hemorrhage. Basement membrane-like deposits were found in various shape and sizes. Tumor cells were immunoreactive for AE1/AE3, CAM 5.2, 34betaE12, S100 protein, vimentin, alpha-smooth muscle actin, and p63 focally. Only a few cells were positive for p53 and Ki-67. Additional study is now in progress. The data would be shown the day.

口蓋腫瘍の 1 例

A case of palatal tumor

中尾 寿奈, 江原 道子, 永山 元彦, 田沼 順一

Juna Nakao, Michiko Ehara, Motohiko Nagayama and Jun-ichi Tanuma

朝日大学歯学部, 口腔病態学講座口腔病理学分野

Department of Oral Pathology, Division of Oral Pathogenesis and Disease Control, Asahi University School of Dentistry

症例：83歳，女性

主訴：左側口蓋部の腫脹

臨床経過：初診約 1 ヶ月前より左側口蓋部に潰瘍を認めた。義歯調整を受けるも同部の急速な腫脹増大を認めたため、当院口腔外科に紹介来院となった。同部の腫脹は数年前にも指摘されたことがあった。初診時、左側口蓋部に30×30mm大の境界明瞭な無茎状の腫瘍と腫瘍中央部に直径15mm大の潰瘍を認めた。腫瘍は弾性軟で自発痛、接触痛は認めなかった。唾液腺腫瘍疑いの臨床診断のもと、生検を施行した。myoepithelial carcinoma, suspectedの病理組織診断にて全身麻酔下で腫瘍切除術を施行した。

摘出物所見：断面は25×20mmの黄白色充実性塊で内部に壊死、嚢胞状変性を認めた。

病理組織学的所見：病巣は明らかな被膜形成を認めず、壊死・出血を伴いながら形質細胞様細胞、淡明細胞様細胞、紡錘形細胞、類上皮細胞の多結節状、充実性および索状増殖を認めた。腫瘍細胞はp63, HHF-35, SMA, vimentin, CK14, p53, S100に陽性を示した。ki-67 labeling indexは5%を示した。また病巣の一部に間質の硝子化、石灰化とその中に好酸性胞体をもつ細胞による腺腔形成を認めた。

検討事項：病理組織学的診断、発生由来

A 83-year-old woman was referred to our hospital with a chief complain of a mass with an ulcer of the left palate. The mass showed a rapid growth 30 × 30 mm in size without pain and with an ulcer formation at the top of the mass, measuring 15 × 15 mm in size in the left palate.

Histologically, the lesion revealed the multi-nodular, solid and cord like proliferation of plasmacytoid, epitheloid or spindle shaped tumor cells with hemorrhage and necrosis tissue without capsule. There are grandular structure composed of eosinophilic cells, hyalinization and calcification in parts.

症例検討 その他の頭頸部病変 2

Case/Slide Seminar: Other Diseases of Head and Neck Region 2

Chair : Prof. Kannan Ranganathan (*Department of Oral Pathology, Faculty of Dentistry, The TamilNadu Dr MGR Medical University*)

Prof. Masatake Asano (*Department of Pathology, Nihon University School of Dentistry*)

下顎骨腫瘍の一例

A case of mandibular bone tumor

北野 太一¹, 尾曲 大輔^{1,2}, 五條堀 孝廣^{1,2}, 太田 裕崇³, 浅野 正岳^{1,2}
 Taiichi Kitano¹, Daisuke Omagari^{1,2}, Takahiro Gojoubori^{1,2}, Hirotaka Ohta³ and
 Masatake Asano^{1,2}

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² 日本大学歯学部総合歯学研究所, 生体防御分野

³ 日本大学歯学部, 歯科保存学第Ⅲ講座

¹ Department of Pathology, Nihon University School of Dentistry

² Division of Immunology and Pathology, Nihon University School of Dentistry

³ Department of Periodontology, Nihon University School of Dentistry

【患者】72歳 女性 既往歴に特記事項なし 全身状態良好

【臨床所見】6か月前左側下顎骨の膨隆を主訴に他院受診したが、縮小したため経過観察となっていた。同部位の膨隆を再び自覚したため、日本大学附属？歯科病院口腔外科を受診した。初診時発赤および腫脹を認めたが知覚麻痺や自発痛はなかった。パノラマX線およびCTにて下顎骨全体の病変を認めたため、画像診断および生検を施行した。

【CT所見】右側関節突起を除く下顎全体に広がる破壊性病変が認められた。腫瘍は顎下腺相当部、左側側頭筋、内側翼突筋に達していた。これらの所見から下顎骨内悪性腫瘍の疑いと診断された。

【画像診断所見】造影CTおよび造影MRIにて左優位に顎骨にびまん性の腫瘍性病変を認めた。骨梁、骨皮質に溶骨性変化が認められ、骨外へ膨隆していた。左側顎下腺はびまん性に腫大し、下顎骨腫瘍と連続していた。「下顎骨中心性癌の疑い。鑑別に左顎下腺悪性腫瘍の下顎骨浸潤」と診断された。PET-CTでは左顎下腺の腫大と高度のFDGの集積が認められ、「左顎下腺癌、下顎骨浸潤。鑑別に歯肉癌を挙げるが歯肉に所見なし。全身への転移の所見なし」と診断された。

東大病院に転院したが、腫瘍の切除は困難と診断され現在重粒子線治療中である。

【病理所見】腫瘍は細胞質に乏しく、N/Cの高い小型細胞が島状、梁状胞巣を形成して増殖している。腺管の形成は認められるが、EMA、dPASに陰性であった。また神経周囲浸潤を伴う。腫瘍細胞は多数の核分裂像を認めるが核異型は乏しい。間質の線維成分は豊富である。免疫組織学ではKi-indexは腫瘍部において82.8%で、Cytokeratin (AE1/AE3), CK19, vimentinに陽性、CK13, CK17, CK8, CK18, α -SMA, S-100蛋白, p63, desminに陰性であった。

【検討事項】病理組織学的診断

A 72-year-old female visited Nihon University School of Dentistry Dental Hospital with her chief complaint of the swelling of left mandible. Orthopantomography revealed that neoplastic disease existed in the mandibular bone and left submandibular gland. Histopathologically tumor cells with hyperchromatic small round nuclei and poor cytoplasm made many small funicular and beam-like tumor nests and stroma was abundant. Immunohistochemically, Ki-index was 82.8% and tumor cells were positive for Cytokeratin (AE1/AE3), CK19 and vimentin and negative for CK13, CK17, CK8, CK18, α -SMA, S-100 protein, p63 and desmin.

頸部リンパ節に転移した腫瘍

Metastatic tumor in the cervical lymph nodes

草深 公秀

Kimihide Kusafuka

静岡県立静岡がんセンター，病理診断科

Pathology Division, Shizuoka Cancer Center

The patient was 51 year-old Japanese female, who noticed the dull pain and sense of incongruity at the right lumbar area, in March, 20XX. She admitted the nearby hospital. CT and MRI showed the liver tumor. So, she admitted to our hospital. CT showed the liver tumor at the right lobe and metastases to the retroperitoneum and left cervical lymph nodes. Under the clinical diagnosis of “Cholangiocellular carcinoma (CCC), metastatic to Virchow lymph node”, lymph node biopsy was performed. Biopsy specimen showed metastasis of large ovoid to short spindle carcinomatous cells. Histologically, we considered 1) metastasis of mammary carcinoma, 2), sarcomatoid variant of salivary duct carcinoma, or 3) metastasis of CCC. Immunohistochemical examination showed the tumor cells were only positive for vimentin and CD31, and focally positive for CAM5.2, but negative for CK19, CK7, CK20, p40, AR, ER, PgR and Her-2. We diagnosed it “Metastasis of poorly differentiated carcinoma”. She changed to the Division of Internal Medicine, and from March, 20XX+1, she was administered 2 cycles of weekly PXT, but the liver tumor and metastatic lesions showed no remarkable change. The platelets became lower. On May, 20XX+1, she febrile and was administered the steroid. In the bone marrow aspiration, she suffered from myelodysplastic syndrome, and CT showed that the liver tumor became larger with intrahepatic metastases, and the ascites also appeared. On June, 20XX+1, she died to hyperammonemia and respiratory failure. The autopsy could not be permitted.

Discussion point: What is the histological diagnosis of cervical metastatic tumor?

ランチョン講演B

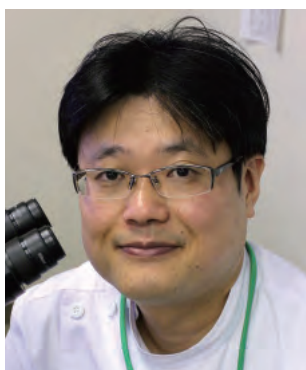
Luncheon Lecture B

Chair : Dr. Junko Aida (*Research Team for Geriatric Pathology, Tokyo Metropolitan
Institute of Gerontology*)

第3日
8月12日(金)
Friday, 12th August

ランチョン講演B Luncheon Lecture B

大会場 12:00~13:00
Main Hall 12:00~13:00



長尾 俊孝 Toshitaka Nagao, MD

東京医科大学人体病理学分野
Department of Anatomic Pathology, Tokyo Medical University

1. Title:
 - Professor and Chairman, Department of Anatomic Pathology, Tokyo Medical University
 - Director, Division of Surgical Pathology, Tokyo Medical University Hospital
2. Education:
 - 1991 Hirosaki University School of Medicine, M.D.
 - 1995 Department of Pathology, Chiba University School of Medicine, Ph.D.
3. Academic Appointments:
 - 1995-2001 Assistant Professor, Department of Surgical Pathology, Teikyo University School of Medicine, Ichihara Hospital, Japan
 - 2001-2008 Assistant Professor, Department of Surgical Pathology, Tokyo Medical University
 - 2002-2004 Visiting Clinician, Division of Anatomic Pathology, Mayo Clinic, Rochester, MN
 - 2008-2009 Associate Professor, Department of Diagnostic Pathology, Tokyo Medical University
 - 2009- Professor and Chairman, Department of Anatomic Pathology, Tokyo Medical University
4. Awards and Honors:
 - 1998 The Japan Salivary Gland Society: Special Award
 - 1999 The Japan Salivary Gland Society: Special Award
 - 2003 The Japanese Division of IAP: Diagnostic Pathology Scientific Award
 - 2004 The Japanese Society of Pathology: Young Investigator Award
 - 2005 The Japanese Society of Pathology: Pathology Research Award
 - 2005 The Japan Salivary Gland Society: Pathology Research Award
 - 2014-2015 The Best Doctors in Japan
5. Editorial Board:
 - Editorial Member: WHO Classification of Head and Neck Tumours (3rd and 4th Editions)
 - Associate Editor: Pathol Int
 - Editorial Board: Head Neck Pathol, J Oral Maxillofac Surg Med Pathol, Ann Clin Pathol, Austin J Cancer Clin Res, ISRN Pathol, World J Surg Proced
6. Membership and Activities in Scientific Societies
 - Director and Education Committee Chair: The Japanese Division of IAP
 - Councilor: The Japanese Society of Pathology
 - Director: The Japan Salivary Gland Society
 - Director: The Japanese Society of Clinical Cytology
 - Member: North American Society for Head and Neck Pathology
 - Member: Head and Neck Working Group (European Society of Pathology)

“新” WHO分類に基づいた唾液腺腫瘍の病理診断法 Diagnostic Clues in Salivary Gland Tumor Pathology Based on the “New” WHO Classification

Salivary gland neoplasms are relatively uncommon and account for approximately 3% of all tumors in the head and neck region. They present a considerable diagnostic challenge for the pathologists owing to their diverse histological features and the presence of a number of types and variants, in addition to overlapping histological patterns similar to those observed in different tumor entities.

The discovery of recently described new immunohistochemical features has provided novel insight for the understanding of salivary gland tumor pathology. Unfortunately few tumor specific markers are still currently available, but the application for AR and HER2 in salivary duct carcinoma and for MYB/MYB-NFIB in adenoid cystic carcinoma, for example, gives valuable information from both diagnostic and therapeutic aspects.

Most recently, tumor specific recurrent chromosomal translocations, resulting in the formation of fusion genes, have also been identified in certain salivary gland malignancies, such as mucoepidermoid carcinoma (CRTC1/3-MAML2), adenoid cystic carcinoma (MYB/MYBL1-NFIB), mammary analogue secretory carcinoma (MASC) (ETV6-NTRK3), and hyalinizing clear cell carcinoma (EWSR1-ATF1). The fusion oncogenes may have diagnostic, prognostic, and future therapeutic implications. Additionally, tumor specific gene mutations, e.g. activating mutation of PRKD1 exon 15 in polymorphous low-grade adenocarcinoma, has also been reported,

The current WHO classification of the salivary gland tumors, corresponding to the 3rd edition, was appeared in 2005 as one of the chapter of the “Blue Book” on the Pathology and Genetics of Head and Neck Tumors. However, it has been 11 years since the publication, and during this time, significant new knowledge has been generated about the fields of pathology and genetics of these tumors. In January of this year, an Editorial and Consensus Meeting was held in Lyon toward to the 4th edition. Although the publication processes are still in progress, a new entity, “secretory carcinoma,” also familiarly known as MASC, will be added in the “new” WHO classification. Furthermore, the designation and categorization of several entities will expected to be changed. The term “low-grade” will be removed from polymorphous low-grade adenocarcinoma. A new category of “intraductal carcinoma” will be made, and then it will include the tumors showing cytologically low- and high-grade, which correspond to low-grade cribriform cystadenocarcinoma and salivary duct carcinoma in situ, respectively. Cystadenocarcinoma, mucinous adenocarcinoma, and intestinal-type adenocarcinoma will fall into the section of “adenocarcinoma, NOS.” Large and small cell carcinomas will be categorized as “poorly differentiated carcinomas” of large and small cell types with or without neuroendocrine differentiation. Moreover, the section of “other epithelial lesions” will be newly generated, in which sclerosing polycystic adenosis, nodular oncocytic hyperplasia, lymphoepithelial lesions, and intercalated duct hyperplasia will be introduced. Limited but noticeable updated immunohistochemical findings and molecular genetic profiles also will be described throughout the text. Although this “new” WHO classification is still quite complex for the general pathologists, it has great advantages from prognostic and therapeutic aspects because biological behavior of each tumor type is considerably different.

In this talk, I'll summarize the most recent developments of salivary gland tumor pathology, focusing on its practical diagnostic clues based on the “new” WHO classification.

特別講演 2

Special Lecture 2

Chair : Prof. Ichiro Semba (*Department of Oral Pathology, Graduate school of
medical and dental sciences, Kagoshima University*)

第3日
8月12日(金)
Friday, 12th August

特別講演 2 Special Lecture 2

大会場 13:10~14:10
Main Hall 13:10~14:10



Wataru YASUI

Professor of Molecular Pathology
Director, Institute of Biomedical & Health Sciences
Hiroshima University

Wataru Yasui, M.D. Ph.D., Director, Institute of Biomedical & Health Sciences Hiroshima University, is a professor and chairman of Molecular Pathology and a board certified in diagnostic pathology. His main area of research interest is molecular pathobiology and biomarkers of gastrointestinal and urological cancers. He has over 400 peer-reviewed publications on the topic of oncology and pathology. After completing his undergraduate studies at Hiroshima University School of Medicine, he obtained his Ph.D. degree (1986) at Hiroshima University. He spent two years as a research fellow at Scripps Research Institute, La Jolla where he worked on the cooperation of transcription and replication. After returning to Hiroshima University, he extensively studied growth factors and cancer-related genes and their regulatory mechanism in gastrointestinal cancer. He became a professor of molecular pathology at Hiroshima University in 2000. His research team has been performing transcriptome dissection to uncover precise mechanism of molecular carcinogenesis and found several of novel diagnostic and therapeutic targets. He is also interested in role of cancer stem cell and non-coding RNA and their clinical implications. He won the Japan Pathology Award by wonderful achievement of molecular pathology of gastric cancer in 2008, and hosted the 103rd annual meeting of the Japanese Society of Pathology (JSP) as a chairman in Hiroshima in 2014. He has served as a director of a number of scientific society including International Gastric Cancer Association, International Society of Gastroenterological Carcinogenesis, Japanese Cancer Association, and Japanese Gastric Cancer Association, and in JPS he has served as vice chairman.

Molecular pathological approach to develop novel cancer diagnostics and therapeutics

Cancer develops and progresses by the accumulation of multiple genetic and epigenetic abnormalities, which is affected by both external and internal factors. Recent advancements in genomic technology and high-throughput analysis including NGS have allowed cancers to be studied at high resolution and at the genetic-molecular levels. Such genetic-molecular profiling data have greatly contributed to the identification of driver alterations such as gene mutations, chromosomal aberrations, transcriptional changes and epigenetic alterations. Precise understanding of molecular mechanism involved in carcinogenesis leads to the identification of clinically important biomarkers and potential therapeutic targets. However, to date, driver alterations remained to be elucidated in certain proportion of cancers, and molecular targeted drugs clinically used are limited.

We have been performing transcriptome dissection on gastrointestinal and urological cancers by various methods including SAGE and CAST, we have identified novel candidates of diagnostic and therapeutic target, such as SPC18, PCDHB9, Reg IV, OLFM4, TSPAN8, BST 2 and CLDN18. SPC18, encoded by SEC11A, is one of the subunits of the signal peptidase complex (SPC). SPC18 participates in growth and invasion partly through stimulation of TGF α secretion. PCDHB9, a calcium-dependent cell adhesion molecule, plays an important role in cell migration, invasion and metastasis. Reg IV, together with OLFM4, is a sensitive serum tumor marker for gastric cancer. Reg IV inhibits 5-FU-induced apoptosis through EGFR activation.

Importance of non-coding RNA in epigenetic regulation in cancer has been focused on. Many laboratories have made great efforts in the expression and function of microRNAs in human cancers. We are interested in long non-coding RNA transcribed from ultraconserved regions, called T-UCR. About 500 segments longer than 200 base pairs are present in human genomes that are 100% conserved among mammalian genomes. Uc416+A, one of the up-regulated T-UCRs in gastric cancer, participates in cell growth. Transcription of Uc416+A was negatively regulated by miR-153 and the important down-stream targets were found to be IGFBP 1 and IGFBP 6. Study on aberrantly expressed T-UCRs in cancer may be an important approach for development of advanced medicine.

Tumors are heterogeneous and are composed of differentiated cancer cells, cancer stem cells (CSCs) and a variety of stromal cells. CSCs possess two main properties: self-renewal and proliferation. In addition, CSCs have high ability of spheroid colony formation, tumorigenicity and metastasis, and are resistant to radio- and chemotherapies. Reg IV, up-regulated in ALDH 1-positive gastric CSCs, has been shown to regulate their CSC properties. Spheroid colony formation is a useful method to characterize CSCs. Number of mitotic kinesin family are up-regulated in in spheroid body-forming gastric CSCs and knock-down of KIFC 1 or KIF11 by si-RNA showed inhibition of the colony formation through ERK 1 / 2 down-regulation.

By exploiting the understanding of stem cell niche, a novel 3D stem cell culture system has been developed that enabled single stem cell to reconstitute stereotypic structures resembling tissues or organs, referred to as organoids. This method can also be applied to patient-derived cancer cells. The organoid study in combination with genome editing using CRISPR/Cas 9 system will provide insights into carcinogenesis and patient-oriented therapeutic development.

症例検討 その他の頭頸部病変 3

Case/Slide Seminar: Other Diseases of Head and Neck Region 3

Chair : Prof. Poramopron Klanrit (*Department of Oral Diagnosis, Faculty of Dentistry, Khon Kaen University*)

Prof. Satoru Toyosawa (*Department of Oral Pathology, Osaka University Graduate School of Dentistry*)

上顎歯肉に発生した潰瘍性病変の一例 A case of ulcerative lesion of maxillary gingiva

五條堀 孝廣^{1,2}, 太田 裕崇³, 尾曲 大輔^{1,2}, 北野 太一¹, 浅野 正岳^{1,2}
Takahiro Gojoubori^{1,2}, Hirotaka Ota³, Daisuke Omagari^{1,2}, Taiichi Kitano¹ and
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¹ *Department of Pathology, Nihon University School of Dentistry*

² *Division of Immunology and Pathology, Nihon University School of Dentistry*

³ *Department of Periodontology, Nihon University School of Dentistry*

【症例】72歳女性

【既往歴】リウマチ、骨粗鬆症、乳腺炎（平成15年に左右乳房切除）、胆嚢全摘出（平成5年）、高血圧（134/80）

【臨床経過】2ヵ月前（平成28年1月26日）より右側上顎大臼歯相当部の歯肉に潰瘍および歯肉退縮を自覚し、かかりつけ歯科医院を受診。その後、右側上顎第二大臼歯の精査加療を目的に紹介されて本院口腔外科受診。初診時に同部位に潰瘍を伴う歯肉退縮および表面粗造な骨露出を認め、骨髓炎の臨床診断のもと右側上顎第二大臼歯の抜歯および生検が施行された。

【病理組織所見】潰瘍を伴う歯肉上皮下に高度の異型性を伴う腫瘍細胞が広範囲に集簇し増殖する像を認めた。腫瘍細胞は核の大小不同、N/C比の増大、クロマチン濃染を示すとともに、核溝、および明瞭な核小体を有し、異型核分裂像を高頻度に認めた。また、腫瘍細胞は周囲の脂肪組織および筋組織へ浸潤する像が認められた。

【免疫染色の結果】大型の腫瘍細胞は、CD20 (+)、CD68 (+)、CD79a (+)、vimentin (+)、PAX-5 (+)、およびCD30の一部 (+) であった。一方、CD3 (-)、CD10 (-)、CD15 (-)、CD56 (-)、EMA (-)、Granzyme B (-)、keratin (-)、α-SMA (-)、S-100 (-)、ALK (-) であった。さらに、ki-67陽性率は60%程度であった。

【検討事項】病理組織学的診断

A-72-year-old woman complained ulcer and recession of gingiva at the right maxillary molar region that had been noticed two months before admission to the Nihon University School of Dentistry Dental Hospital. Histologically, the specimen revealed the tumor cells with high variegate proliferation. The tumor cells showed numerous mitosis and invaded the surrounding lipid and muscle tissues. Immunohistochemical staining revealed that tumor cells were positive for CD20, CD68, CD79a, vimentin, PAX-5 and partially positive for CD30, but negative for CD3, CD10, CD15, CD56, EMA, Granzyme B, keratin, α-SMA, ALK and S-100. The Ki-67 labeling index was about 60%.

下顎骨腫瘍

Mandibular tumor

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17歳の男性。当院初診の2か月前から下唇の知覚鈍麻を自覚し、1か月前から右頬部に無痛性腫脹が出現し、徐々に増大してきたため近医内科を受診した。腫瘍性病変が疑われたため、九州大学病院顔面口腔外科を紹介受診した。右咬筋上に弾性軟～硬で境界明瞭な直径50mm大の軽度圧痛のある腫瘍を認めた。X線では、右下顎角部に境界やや不明瞭な多房性透過像を認め、皮質骨辺縁は一部消失していた。CTでは、右下顎智歯部から下顎切痕部付近までの範囲の骨の膨隆と菲薄化を伴う腫瘍を認めた。MRIで、右下顎枝に62×63×74mm大、T1強調像で低信号、T2強調像で低～高信号の腫瘍を認めた。画像検査と生検施行するも確定診断に至らなかった。初診後も腫瘍は増大傾向を示し、腫瘍切除術が施行された。腫瘍は右下顎角部に位置し、その断面は充実性で灰白色を呈した。組織学的所見は、筋線維芽細胞様の紡錘形細胞の増殖を認め、線維性や膠原性もしくは粘液性の間質や出血を伴った。骨梁や骨格筋も周囲に認められた。免疫組織学的には、beta-catenin (nuclear stain) とalpha-SMA, HHF-35, vimentinに陽性を示し、AE1/3, S100, CD34, CyclineD1, Mdm2に陰性であった。

【検討事項】 病理組織学的診断

A 17-year-old man had a painless swelling in the right buccal region and an increase in the size of the mass. The lesion was well-demarcated round and soft to solid tumor, measuring 50 mm in diameter, on the right masseter. Histologically, the surgical resected sections showed a proliferation of myofibroblastic spindle-shaped cells with bland nuclei, accompanied by fibro-collagenous or myxoid stroma. Entrapment of bone trabeculae and skeletal muscles was also observed at the periphery. Immunohistochemically, the tumor cells were positive for beta-catenin (nuclear stain), alpha-SMA, HHF-35 and vimentin.

30年の経過をとった顎骨病変

A jaw lesion with a 30-year history

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【症例】38歳, 女性。

【臨床経過】1986年(患者年齢8歳)に下顎左側の腫瘤形成を指摘されたというが, 詳細は不明。90年6月, 上顎両側臼歯部と下顎の左側切歯部から右側大臼歯部に膨隆がみられ, 歯源性腫瘍の臨床診断にて下顎骨部分切除術が施行された。手術材料の病理組織学的診断はcementifying fibromaであり, その後, 下顎骨に腫瘍再発はみられなかった。

97年ころから上顎両側の膨隆が増大し, 99年2月には上顎骨が前方へ突出して顔面は変形し, X線的に病変は左側では上顎洞内に広がり, 右側では眼窩底に達していた。病変の部分切除が行われ, 病理組織診断はcemento-ossifying fibromaであった。こののち, 00年, 03年, 04年, 05年および07年に, 腫瘍の部分切除がなされ, 切除材料の病理組織学的診断はいずれもcemento-ossifying fibromaであった。16年2月に腫瘍は右側篩骨洞にまで浸潤し, 腫瘍の増大により右側鼻腔は閉鎖されていた。

【病理組織学的所見】いずれの切除材料標本においても, 病変組織は線維芽細胞の分布密度が高い線維性結合組織増殖であり, 線維性結合組織内にはセメント質様硬組織が形成され, それら硬組織の分布状況は様々であった。病変組織と周囲組織との境界は不明瞭で, 病変組織は周囲の骨組織内に浸潤増殖していたが, 増殖する線維芽細胞に異型性はみられなかった。配布標本は16年2月の切除材料より作製したものである。

【検討事項】病理組織学的診断

A 38-year old Japanese female is presented, who has been suffering from swelling and deformity of jaws for 30 years. In 1986, she was indicated tumor formation at the maxilla and mandible. The Mandibular tumor was resected in 1990. Histopathological diagnosis of the tumor was cementifying fibroma. Though the mandibular tumor did not recurred, the maxillary tumor had markedly enlarged since 1997. The maxillary tumor was partially resected in 1999, 2000, 2003, 2004, 2005, 2007, and 2016. Histopathological diagnosis of the maxillary tumor had been cemento-ossifying fibroma.

上顎骨腫瘍の一例

A case of the maxilla tumor

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【患者】60歳代, 男性

【臨床経過】8ヶ月前に近医歯科にて上顎右側犬歯を抜歯, 6ヶ月前に同部位の腫脹を自覚した。以降も腫脹が増大し続けたため, 精査加療目的で当院紹介受診となった。当院受診時, 上顎右側の前歯部から小臼歯部歯肉に33×25mm大の腫脹を認め, 中央部には潰瘍形成が認められた。生検診断の下に, 上顎骨半側切除術が施行された。

【画像所見】パノラマX線検査では, 上顎右側の前歯部から小臼歯部にかけて, 境界不明瞭な骨透過像が認められ, 透過像内の歯牙は浮遊状態となっていた。CT検査では, 上顎正中部から右側第一大臼歯近心までの骨吸収と病変内部に石灰化物が認められた。MRI検査では, 病変は右側の鼻腔および上顎洞に進展していた。

【病理所見】

生検標本: 膨隆部の歯肉より採取された組織標本では, 被覆上皮下に多数の破骨型多核巨細胞と, 多形性の目立つ高度な単核異型細胞が充実性に増殖していた。単核異型細胞は豊富な胞体を有しており, 核小体の明瞭化や核の大小不同が認められ, 核分裂像が高頻度に認められた。

手術標本: 生検標本と同様に高度な異型細胞が, 多数の破骨型多核巨細胞を伴って増殖していた。組織像は生検標本に類似していたが, 病変内では類骨および骨の形成が認められた。

【免疫染色】

単核異型細胞はRunx2, RANKL, MDM2, CDK4陽性であったが, AE1/AE3, LCA, Melan-A, HMB-45, SOX10, S100, MyoD1陰性を示し, MIB-1 indexは約75%程度であった。

破骨型多核巨細胞はLCA, CD68, TRAP陽性であった。

【問題点】病理組織診断

A 64-year-old male had a rapidly expansile mass with pain in the right maxilla in the last 6 months. CT showed bone expansion and destruction of cortical bone. Calcified materials were observed within the lesion. MRI revealed an irregular mass extended into right antrum, nasal cavity and oral cavity. Under a diagnosis of malignant lesion by biopsy, segmental maxillectomy was performed. Histopathologically, this tumor consisted of atypical mononuclear cells with numerous osteoclast-like multinucleated giant cells. Atypical mononuclear cells produced neoplastic bone and were immunopositive for Runx2, RANKL, MDM2 and CDK4. The multinucleated giant cells were immunopositive for CD68 and TRAP.

一般演題 ポスター 1

General Poster 1

Chair : Prof. Istiati (*Oral Pathology and Maxillofacial Department Airlangga University*)

Dr. Kazuhiko Okamura (*Division of Oral Pathology, Department of Morphological Biology, Fukuoka Dental College*)

Peripheral odontogenic hamartomaの病理組織学的検討 Histopathologic examination of peripheral odontogenic hamartomas

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〔緒言〕 Peripheral odontogenic hamartomaは、臨床的には歯肉腫瘍として認められ、組織学的には、歯の発生過程で認められる歯源性上皮や異型象牙質などの組織を内部に含む線維性結合組織の増生として認められるが、それらの構成成分の明瞭な歯胚への分化や、腫瘍性増殖は見られない限局性の病変と考えられている。Peripheral odontogenic hamartomaと考えられた2症例について、病理組織学的に検討する。

〔症例1〕 15歳、女性。13口蓋側に発赤を伴う直径10mmの隆起性病変が見られた。X線像では特記すべき所見はなかった。生検組織では、組織学的に緻密な結合組織内に、基底細胞様細胞、明細胞などの形態を示す上皮胞巣が見られた。また、末梢神経が病変内に巻き込まれていた。病理組織診断：Gingival epithelial hamartoma, suspected.

〔症例2〕 42歳、男性。23口蓋側に直径10mmの有茎性腫瘍が認められた。X線像では歯槽骨の吸収は見られなかった。切除標本では、組織学的には、腫瘍は不規則な走行を示す太い膠原線維よりなっており、内部に上皮胞巣が散見された。上皮胞巣の一部には高円柱状上皮と幻影細胞に接して、異型象牙質様基質の形成が認められた。

病理組織診断：Peripheral odontogenic hamartoma, suspected.

〔考察〕 Peripheral odontogenic hamartomaには、症例1の様に上皮成分のみ見られるものや、症例2の様に歯源性上皮間葉相互作用を認めるものなどがあるが、いずれも腫瘍性増殖の所見は認められず、周辺性歯源性腫瘍とは異なる疾患として取り扱う必要があると考えられた。

Peripheral odontogenic hamartoma is noticed as a gingival mass. Although its clinical and histologic features are similar to peripheral odontogenic tumors, they should be distinguished as different diseases. Histologically peripheral odontogenic hamartoma is composed of dense fibrous tissue including odontogenic epithelial cells, and atypical dentin with various patterns. We will present histopathologic features of two cases of peripheral odontogenic hamrtoma. The case 1 shows odontogenic epithelial nests in the fibrous tissue, and the case 2 shows a few odontogenic epithelial nests with ghost cells, and atypical dentin like matrix in the dense fibrous tissue.

Reccurent Ameloblastome Cause of Recidif : Case Report

_ Istiati

Airlangga University

Patient Women 35 years with Swollen at the upper jaw / maxilla appear after extraxtion the tooh 3 month ago on 2013 and on 2014 looked the swollen more biger and be Operated on 20th february 2015 diagnosed ameloblastome Five month to word there was happeded reccurentcy with some complain as disturbances of eye (hazy) with headche and plug of nose. Therefore 11st Sept 2015 lession widely to intracranial and desctruction of superior orbital wall and tumor mass filled of sinus ethmoidale sinistra until left sinus maxilaris continue distruction of right sinus maxillaris. 28th agust 2015 showed multilocular cyctic lession residif with enhancing of solid lession that distruction of intracranial and expantion to orbital. 28th agust 2015 showed multilocular cyctic lession residif with enhancing of solid lession that distraction of intracranial and expantion to orbital. Histopatological examination with diagnosed : 15th may 2013 : Ameloblastome plexiform type 20th feb 2015 : Ameloblastome plexiform was follicular patrren and 20th feb 2015 : Ameloblastome plexiform was 28th Agust : Agresive ameloblastome after 2times residif pattren and positive margin. 28th Agust : Agresive ameloblastome after 2times residif

下顎前歯舌側歯肉に発生した周辺性エナメル上皮腫の一例

A case of Peripheral Ameloblastoma arising the anterior lingual gingiva of the mandible

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エナメル上皮腫は全歯源性腫瘍の9～11%と発生頻度が高く、WHO分類(2005)により充実型／多嚢胞型、類腱型、単嚢胞型および周辺型／骨外型の4型に分類される。そのうち周辺型／骨外型である周辺性エナメル上皮腫は稀な疾患であり、発生頻度が全エナメル上皮腫の1～5%と最も低い。今回われわれは下顎前歯部舌側歯肉に発生した周辺性エナメル上皮腫を経験したので、過去の文献的考察を加えて報告する。症例は、63歳、男性。特記すべき基礎疾患はない。平成27年7月4日に下顎左側側切歯舌側歯肉に無痛性の腫瘍を自覚し、同年7月6日に近医を受診した。ジスロマックを処方され、服用し経過観察をするも著変ないため同年8月3日に精査・加療を目的に東京歯科大学千葉病院口腔外科を紹介受診した。下顎左側側切歯舌側歯肉に10×10mm程度の弾性硬の腫瘍を認めた。表面粘膜は正常色で、圧痛は認めなかった。また、下顎左側前歯はすべて生活歯であった。X線画像検査にて類円形の不透過像を認め、直下に圧迫性の骨吸収がみられた。MRI検査にてT1強調像で低信号、脂肪抑制T2強調像で高信号を示した。同年9月2日に局所麻酔下にて全摘生検を施行した。切除物には伸展された錯角化重層扁平上皮下に線維性結合組織によって小葉状に分けられ、不完全に被包されたようにみえる腫瘍塊が観察された。腫瘍胞巣は高円柱状で強い塩基性を示すエナメル芽細胞類似の腫瘍細胞が基底側に柵状配列し、内側には細胞密度の高い多角形で好塩基性細胞の充実性増殖やエナメル嚢に類似する腫瘍細胞が観察された。腫瘍の一部にfollicular patternがみられるものの、充実性のplexiform patternが主体となっており、一部では間質に増生したdesmoplasticな部分が混在している。本症例では腫瘍性病変を疑い、切除生検にて周辺性エナメル上皮腫と最終的に診断した。周辺性エナメル上皮腫と同様の歯肉腫瘍を形成する疾患に乳頭腫やエプーリス、周辺性扁平上皮性歯源性腫瘍などがあり、鑑別のために病理診断は重要となる。

Peripheral ameloblastoma is a rare extraosseous odontogenic tumor with histological characteristics similar to those of common intraosseous ameloblastoma.

We report the case of a peripheral ameloblastoma on the lingual surface of the anterior mandible. A 63-years-old man presented with a 10×10 mm tumor in diameter. This tumor was elastic hard and surface mucosa was normal. Radiographic examination showed compressive resorption of bone. The tumor was excised under local anesthesia. According to the clinical and pathological features, a diagnosis of peripheral ameloblastoma was made. As of 9 months after operation, no sign of recurrence has been observed.

Keratoameloblastoma: report of a rare histologic variant of ameloblastoma

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Being recognized as a rare variant of ameloblastoma, keratoameloblastoma represents ameloblastoma which demonstrates extensive keratinization. To date, there are approximately 20 case reports of keratoameloblastoma in the English language literature. Whether or not the lesion demonstrated a papilliferous component is one of the main points of discussion described in these published reports. Here, we report an additional case of keratoameloblastoma presented as a well-defined, radiolucent lesion between the roots of upper right lateral incisor and upper right canine of an 18-year-old female. Microscopically, the lesion demonstrated features of plexiform ameloblastoma, exhibiting extensive squamous metaplasia. Remarkable surface parakeratinization with lamellar parakeratin deposition as well as extrusion of parakeratin into the connective tissue stroma were observed. Dystrophic calcifications were seen throughout the lesion. There were also areas resembling keratocystic odontogenic tumour at the periphery of specimen. The lesion was completely enucleated with no evidence of recurrence at 7 months.

一般演題 ポスター2

General Poster 2

Chair : Prof. Swe Swe Win (*Department of Oral Pathology, Faculty of Dentistry,
University of Dental Medicine, Yangon*)

Prof. Shuichi Hashimoto (*Division of Oral Pathology, Department of
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Calcifying Epithelial Odontogenic Tumor with unusual large epithelial cells: Report of a case

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Calcifying epithelial odontogenic tumor (CEOT) is a rare benign odontogenic tumor, accounting approximately 1% of all odontogenic tumors. It is characterized histologically by the presence of polygonal epithelial cells, calcification, and eosinophilic amorphous materials resembling amyloid. We present a non-calcifying variant of intraosseous CEOT with a presence of unusual large epithelial cells in a 36-year-old Thai woman. The lesion was a cystic mass around the crown of embedded tooth 13 and clinically diagnosed as dentigerous cyst. Histopathologically it represented a cystic-like space lined by a sheet of large odontogenic epithelial cells with central nuclei and abundant eosinophilic cytoplasm that are not characteristics of CEOT. The large epithelial cells form gland-like structures in some areas. The histologic characteristics of CEOT composing of strands and sheets of polyhedral epithelial cells intermixed with numerous amyloid deposition are presented underneath the cystic lining. No calcification was observed in the tumor tissue. The unusual large epithelial tumor cells were strongly immunopositive for AE1/AE3 and negative for PAS and mucicarmine. Langerhans cells, demonstrated by anti-S100 and anti-CD1a, were present at the periphery of those epithelial cells.

上顎骨に生じた原発型エナメル上皮癌の1例

Ameloblastic Carcinoma, Primary Type, of the Maxilla: A Case Report

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Ameloblastic carcinoma is rare malignant odontogenic tumor that classified as a tumor that combines the morphological features of ameloblastoma and carcinoma. Ameloblastic carcinoma mainly classified into 2 types: a primary odontogenic malignancy and a secondary type resulting from malignant transformation of ameloblastoma. Due to its rarity, it poses difficulties for diagnosis. We herein report the case of a primary ameloblastic carcinoma in the right maxilla of a 52-year-old woman. The patient was referred to Kumamoto University Hospital by a general dental practitioner because of swelling of the right side of the maxilla and a globular-shaped lesion in Computed tomography. An incisional biopsy was performed and the lesion revealed to be a solid mass. Based on the immunohistochemical staining study, the initial diagnosis was malignant myoepithelioma or adenoid cystic carcinoma. A half maxillectomy and split-thickness skin grafting from the left inguinal region. The postoperative pathological diagnosis was ameloblastic carcinoma. At present 10 year after the operation, the patient is still alive with no recurrent or metastatic sign in clinical and imaging follow-up examinations. A review of previous literature and the present case indicates that early, aggressive and complete removal of the tumor may be the best treatment option for this malignancy.

下顎骨に生じた二次型エナメル上皮癌の1例

Ameloblastic Carcinoma, Secondary Type, of the Mandible: A Case Report

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Ameloblastic carcinoma rarely arises in the oral cavity and is mainly classified into 2 types: a primary odontogenic malignancy and a secondary type resulting from malignant transformation of ameloblastoma. Ameloblastic carcinoma, secondary type, is extremely rare, and few cases have been reported since 2005. We herein report the case of a secondary ameloblastic carcinoma that showed pathological evidence of transformation from a benign to a malignant tumor in the left mandible of an 87-year-old man. The patient was referred to Kumamoto University Hospital by a general dental practitioner because of swelling of the left side of the mandible. Biopsy yielded a diagnosis of ameloblastoma, plexiform type. A tumor enucleation was performed based on an initial diagnosis and considering his age. The postoperative pathological diagnosis was ameloblastoma. Two years after first operation, he underwent tumor enucleation again because of the recurrence. After a further 2 year after second operation, the tumor regrowth again and showed rapid expansion. A tumor enucleation was performed again based on the findings of fine-needle aspiration biopsy. The postoperative pathological diagnosis was ameloblastic carcinoma. Although mandibulectomy was considered for his radical cure, the patient and his family refused radical surgery because of the postoperative malfunction. At present 2 year after the third operation, the patient is still alive with no recurrent or metastatic sign in clinical and imaging follow-up examinations. A review of previous literature and the present case indicates that the definitive treatment of an ameloblastoma is important to eliminate the risk of malignant transformation.

Ameloblastic Carcinoma of the mandible Case report

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Background: Ameloblastoma (AB) is an epithelial odontogenic neoplasm with locally aggressive but benign biological characteristics arising from remnants of odontogenic epithelium. Ameloblastic carcinoma (AC) is defined as the odontogenic tumor showing malignant histologic features within ameloblastoma. AC is classified into two types, primary and secondary types, in 2005 WHO classification. The primary type is extremely rare, and the secondary type arises in pre-existing benign ameloblastoma. We present a case of secondary AC, in which malignant transformation was suggested to be occurred through epithelial-to-mesenchymal transition (EMT).

Clinical course and findings : A 21-years-old female complained a painless swelling of the gum in the right 3rd molar region. A cystic mass was found in the region of the right mandible and ameloblastoma was suggested by a panoramic X-ray. Biopsy was done and the histology revealed the features of ameloblastoma. The tumor grew consecutively and expansively, and malignant transformation was suggested clinically. One month later, re-biopsy was done and the histology revealed ameloblastic carcinoma.

Immunohistochemical findings: CK15 were strongly expressed in the stellate reticulum(SR) cells in ameloblastoma. E-cadherin expression was recognized in both SR and peripheral columnar(PC) cells, but vimentin expression was not seen in these tumor cells in ameloblastoma. CK15 and E-cadherin expressions were depressed in the atypical spindle-shaped tumor cells in AC, but conversely strong positivity of vimentin was recognized in these atypical cells in AC. These findings suggested EMT was occurred in AC.

Conclusion: Pathological and immunohistochemical findings suggested that malignant transformation priming AB to AC was occurred through EMT.

一般演題 ポスター3

General Poster 3

Chair : Prof. Kaoru Kusama (*Division of Pathology, Department of Diagnostic and Therapeutic SciencesMeikai University School of Dentistry*)

Calcifying cystic odontogenic tumor

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A female 14-year-old patient had swelling on the right vestibule of maxillary one year ago. The patient had been drained two times in local hospital in 3 months and 1 week respectively before coming to Hanoi Medical University Hospital. Brown color liquid came out from drainage. In clinical examination, there was no evidence of dental caries and periodontal disease. The patient had no trauma history in maxillary incisors region. The lesion located between canine and lateral incisor in right maxillary and expanded lateral bony wall. The mucous above the lesion was normal. Eggshell cracking symptom could be detected on anterior wall of maxillary. On the pantomography, there was well-demarcated radiolucent lesion with clear radiopaque border, which expanded to antrum and floor of nasal cavity. It made the root of the canine and premolars inclined distally and the root of lateral incisor to opposite side. There was no evident of radiopaque spot or impacted teeth inside the lesion. Although pulp test was positive, the canine and lateral incisor was root canal treated preoperationally. Enucleation surgery and apicoectomy had been done for the patient. Histopathology slide has cystic structure, epithelial outer layer is ameloblast-like with palisaded fashion and small nuclei polarity far from basement membrane. Loosening cells similar to stellate reticulum is revealed above the epithelial layer. Especially, there are many ghost cells inside proliferative stroma tissue with accumulation of lymphocytes and noted some calcifying areas. Histologic features refer to calcifying cystic odontogenic tumor.

A case of hybrid odontogenic tumor: Calcifying cystic odontogenic tumor and odontoma showing various developing stages-

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Hybrid odontogenic tumor is a rare lesion showing combined histopathological characteristics of two or more odontogenic tumors within single mass clinically and microscopically. Calcifying cystic odontogenic tumors (CCOT) are rarely combined with odontoma, ameloblastoma, ameloblastic fibroma (AF), and ameloblastic fibro-odontoma. We report a CCOT and odontoma showing various developing stages, which challenges differential diagnosis.

An 18-year-old female in Nepal presented with swelling on left area of mandible. Intraoral examination revealed 2×2 cm swelling extending from mandibular retained 74 to 36, soft to fluctuant in consistency with expansion of buccal cortical plate. Orthopantomogram revealed a radiolucent lesion apical to 35,74,36 and a mixed radiolucent-radiopaque mass in between roots of 33 and 74.

Histopathologically, the lesion was composed of two different structures. The cystic cavity was lined by columnar or cuboidal basal cells and stellate or spindle cells with clusters of ghost cells identical to CCOT. Beneath the lining epithelium, dentinoid like hyaline material was found. In the cyst wall, multinodular structures composed of myxoid cell-rich stroma resembled dental papilla with strands and islands of odontogenic epithelium showing peripheral palisading and central stellate arrangement. The hard tissue mass showed mixture of dentin and enamel matrix.

Combined together, the cyst walls and the hard tissue mass were diagnosed as immature and mature odontoma, respectively. The final diagnosis is CCOT and odontoma with varying developing stages.

The cell-rich stroma with odontogenic epithelium resembles ameloblastic fibroma, but careful evaluation of multinodular structures similar to tooth germ is highly suggestive of a developing odontoma.

上顎歯肉に生じた象牙質形成性幻影細胞腫の1例

A case of dentinogenic ghost cell tumor of the maxillary gingiva

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【緒言】象牙質形成性幻影細胞腫（Dentinogenic ghost cell tumor：以下DGCT）は石灰化歯原性嚢胞（COC）の充実型とかつて呼ばれていたが、2005年に改訂されたWHO分類において、嚢胞状の形態を示す石灰化嚢胞性歯原性腫瘍（CCOT）と充実性に増殖するDGCTの2型に分けられた。今回、左側上顎歯肉に発症したDGCTの1例を経験したので報告する。

【症例】60歳男性。2015年6月、左側上顎歯肉の腫脹を主訴に当科を受診した。初診時、口腔外所見には異常を認めず、口腔内所見では左側上顎犬歯側歯肉に11×10mmの弾性硬で表面滑沢な腫瘤を認めた。画像所見には異常を認めなかった。

【処置および経過】左側上顎歯肉腫瘍の臨床診断の下、局所麻酔下に骨膜を含めて腫瘍切除術を行った。病理組織学的所見としては、病変部は重層扁平上皮に覆われ、その直下の間質内に腫瘍性病変を認めた。腫瘍性病変の主たる成分は象牙質様の好酸性の硬組織であり、深部にはエナメル上皮腫様の上皮が存在した。上皮は辺縁が柵状に配列した胞巣を形成し、その中心には幻影細胞を認めた。幻影細胞の集塊と歯原性上皮に接した象牙質様の硬組織の増殖が見られたため、病理組織学的診断は象牙質形成性幻影細胞腫（DGCT）とした。

【考察】石灰化歯原性嚢胞（COC）の発生頻度は歯原性腫瘍の1～2%であり、DGCTはそのうちの2～14%と報告されている極めて稀な疾患である。渉猟し得た限りにおいて本症例を含め35例の報告があり、骨侵襲が強く、再発症例も認めた。病理組織学上において、DGCTは「エナメル上皮腫に類する腫瘍胞巣を形成して局所浸潤性に増殖する腫瘍で、幻影細胞の異常角化と異型象牙質の形成を伴う」と定義されている。幻影細胞と異型象牙質の存在が歯牙エナメル上皮腫や骨線維性エプーリスなどの鑑別点となり、石灰化嚢胞性歯原性腫瘍（CCOT）と比較するとDGCTは充実性増殖を認める。鑑別において、臨床所見のみで判断するのは困難であり、確定診断には病理組織学的所見が必須であると考えられる。

Dentinogenic ghost cell tumor (DGCT) has been defined as a solid type of calcifying odontogenic cyst, however, according to the WHO classification in 2005, it is now divided into two categories: CCOT (cystic type) and DGCT (solid type). Here we report that a case of DGCT originating in the left maxillary gingiva. The patient was a 60-year-old male, who had a tumor at the left maxillary canine region. The tumor was surgically removed.

Histologically, the tumor consisted of ghost cells, dentinoid-like materials and ameloblastomatous epitheliums. On the basis of these findings, we diagnosed this lesion as DGCT.

一般演題 ポスター4

General Poster 4

Chair : Dr. Yumi Ito (*Division of Diagnostic Pathology Tsurumi University Dental Hospital*)

下顎臼歯部に発生したエナメル上皮線維歯牙腫の1例 A case of ameloblastic fibro-odontoma in a mandibular molar.

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[緒言] エナメル上皮線維歯牙腫は、歯源性混合性腫瘍で、エナメル上皮線維腫の中にエナメル質、象牙質、セメント質など歯牙腫様の硬組織形成を伴う極めて稀な歯源性腫瘍である。若年者の臼歯部に好発し、第一大臼歯や第二大臼歯の埋伏に関連し、X線学的には境界明瞭な透過像の中に硬組織形成量に応じて種々の大きさの不透過像を呈する。今回、我々は右側下顎臼歯部に発生したエナメル上皮線維歯牙腫の1例を経験したので病理組織学的に検討し報告する。[症例] 10歳の男子。主訴: 右側下顎第一大臼歯の萌出遅延。既往歴、家族歴: 特記事項なし。現病歴: 右側下顎第一大臼歯の萌出遅延に気づいていたが、自覚症状などではなくそのまま放置していたが20XX年1月、精査目的で病院歯科口腔外科を受診した。パノラマ写真X線的には埋伏した右側下顎第一大臼歯の歯冠部付近に境界明瞭な単房性透過像を認め、内部には周囲骨と同様のCT値を示す骨様硬化像がみられた。現症: 全身所見: 体格、栄養状態良好。口腔外所見: 顔貌は左右対称であり異常所見なし。口腔内所見: 右側臼歯部での膨隆や腫脹、疼痛は認められず、同部歯肉は健常粘膜色を呈していた。[処置および経過] 20XX年3月、右側下顎骨腫瘍の臨床診断のもと腫瘍摘出術を施行した。同部に切開を入れると上皮と連続する嚢胞様病変を認めた。白色を呈し、周囲骨より容易に剥離できた。内部に小さな硬固物が含まれていた。埋伏しとの関係は不明であった。[病理組織学的所見] 歯乳頭類似の間葉組織の密な増殖と索状ないしは小島状の大小の歯堤類似の上皮胞巣からなり、一部では水腫様の変化も見られた。硬組織は歯牙類似の構造を呈し、類象牙質、エナメル小柱構造を伴うエナメル基質を認めた。以上の所見より、エナメル上皮線維歯牙腫と診断した。

Ameloblastic fibro-odontoma is a very rare, odontogenic mixed tumor. It is formed by proliferation of odontogenic epithelium combined with odontogenic ectomesenchyme, and hard tissue resembling enamel, dentine, and cementum were found. We report a case of ameloblastic fibro-odontoma in a mandibular molar. The patient was 10-years-old boy. A X-P revealed an impacted tooth, thought to be the right mandibular first-molar, at the well-circumscribed and radiopaque were observed. Histologically, there were composed of cellular connective tissue with proliferating odontogenic epithelium in the form of island and cord, and enamel and dentine were observed. The histopathological diagnosis was an ameloblastic fibro-odontoma

Clinical and Pathologic Findings of Ameloblastic Fibrodentinitoma (Malignant?): A Case Report

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Introduction: A rare case of malignant transformation of ameloblastic fibrodentinitoma has been presented in this study.

Presentation of case: A 58-year old female patient was admitted to the oral and maxillofacial clinic with a complaint of headaches, facial numbness, left eye swelling and overflow tears, which had persisted for more than 10 days. Three-dimensional CT revealed the bone destruction of the maxilla, medial orbital wall, lamina orbitalis and nasal septum region. Bilateral frontal sinus, ethmoid sinus and maxillary sinus shows signs of inflammatory response. Histologic examination revealed that this tumor composed of odontogenic epithelium, odontogenic mesenchyme and dentin-like tissues. The odontogenic epithelium strands lie in ectomesenchymal tissue with spindle-shaped fibroblasts. We also found irregular shaped cells with mitoses in ectomesenchymal tissues, meanwhile, the odontoblasts accumulation could be observed around the dentin-like tissues. Immunohistochemical analysis revealed that the odontogenic epithelial and ectomesenchymal cells were positive for Ki-67, and Ki-67 labeling index was over 30%.

Conclusion: These findings maybe suggest the diagnosis of malignant transformation of ameloblastic fibrodentinitoma. In the future, we need to combine other markers to confirm the diagnosis of the rare case.

下顎骨に生じたエナメル上皮線維象牙質肉腫の一例

A rare case of ameloblastic fibrodentinosarcoma of the mandible

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Ameloblastic fibrosarcoma (AFS) is an odontogenic tumor with a benign epithelial and a malignant ectomesenchymal component. It is regarded as the malignant counterpart of the ameloblastic fibroma. Ameloblastic fibrodentinosarcoma (AFDS) is an extremely rare odontogenic tumor. This tumor is characterized by the formation of dysplastic dentin in addition to the typical features of AFS. Only cases less than 20 have been reported in the literature. We herein report a case of AFDS arising in the mandible. An 18-year-old male was referred to our hospital for evaluation of the swelling and pain in the right mandible. A panoramic radiograph demonstrated a multilocular radiolucent area with a sunray periosteal reaction in the right mandibular molar to premolar region. After performing a biopsy, which confirmed a primary diagnosis of ameloblastoma, surgical excision was performed under general anesthesia. Three weeks after the pathologic diagnosis, we performed the segmental resection of the right mandible and the mandibular reconstruction with the iliac bone graft. However, the resected specimen presented some malignant features with the formation of dysplastic dentin. Therefore, we discussed with some pathologists and evaluated the specimen in more detail by the immunohistochemical analysis. As a result, we obtained the final pathologic diagnosis of the AFDS. According to the pathologic definite diagnosis, we reassessed the spread of the disease by the PET/CT, and neither the cervical lymph node nor the distant metastasis was detected. The patient's postoperative course was uneventful, and no signs of recurrence have been found 2 years after the operation.

一般演題 ポスター5

General Poster 5

Chair : Dr. Toshinari Mikami (*Department of Pathology, Division of Anatomical and Cellular Pathology, Iwate Medical University*)

Calretinin expression in the diagnosis of ameloblastoma

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Background: The differential diagnosis of ameloblastomas with non-odontogenic cysts and tumors based on histopathological features only may sometimes pose a challenge.

Aims: To evaluate the usefulness of calretinin as a marker for ameloblastoma.

Methods: The study was carried out on 45 ameloblastomas (including 27 solid and 18 unicystic) and 25 odontogenic cysts and tumors including 15 keratocystic odontogenic tumors (KCOT) and 10 dentigerous cysts (DC), treated at the National Hospital of Odonto-Stomatology- HCM city from 2011 to 2015. Immunohistochemistry was performed following LSAB method using anti-calretinin monoclonal antibody (SP65, dilution 1:6). Calretinin expression was evaluated as 0, 1+, 2+, 3+ with respectively 0%, 1-25%, 26-75% and >75% in 10 HPFs.

Results: Calretinin expression was positive in 32 of 45 ameloblastomas (71%) (70% in solid and 72% in unicystic, $p = 0.893$), recorded as 75% 1+, 25% 2+, 0% 3+; and in 5 of 15 KCOTs (33%) with 60% 1+ and 40% 2+, but negative in DC. The difference was statistically significant when comparing calretinin expression in ameloblastoma vs KCOT ($p = 0.009$), ameloblastoma vs DC ($p = 0.000$), but not significant between KCOT vs DC ($p = 0.061$). Comparing with histopathological diagnosis of surgical specimens, the diagnostic value of calretinin for ameloblastoma was : sensitivity 71.1%, specificity 80%, PPD 86.5%, NPV 60.6% and Kappa index 0.55 in moderate compatibility ($0.4 < \text{Kappa} < 0.8$).

Conclusion: Calretinin could be used as a valuable marker to support the diagnosis of ameloblastomas, especially to differentiate unicystic ameloblastomas from KCOTs and dentigerous cysts.

Ki-67 expression and radiographic tumor boundaries as predictors of recurrence of ameloblastomas

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Background: Ameloblastoma is an odontogenic neoplasm with local invasiveness and high recurrence rate.

Aims: To investigate whether the recurrence of ameloblastoma could be predicted by clinical, radiological, histopathological features and by the expression of proliferation marker Ki-67.

Methods: This study was carried out on 61 patients with ameloblastomas (53 solid and 18 unicystic) treated at the National Hospital of Odonto-Stomatology- HCM city from 2011 to 2013 and followed up to 2016 (mean 40 months). Panoramic radiographs and CT scans were reviewed. Paraffin sections of tumor specimens were submitted for H&E staining and immunohistochemistry with a LSAB technique using monoclonal antibody against Ki-67 (clone MIB-1, dilution 1:500).

Results: Among the 61 cases, 21 cases (34%) showed local recurrence proved on biopsy. No statistically significant relation was found between recurrence and clinical and histopathological types. The recurrence rate was significantly higher in patients under 30 years of age (48%) than in older patients (22%), in cases treated by enucleation (86%) than by radical surgery (8%), in cases of ill-defined margin (77%) than in cases of well-defined margin with or without sclerosis (23%) ($p = 0.03, 0.000, 0.001$, respectively). The Ki-67 index in recurrent cases ($12.8 \pm 4.9\%$) was significantly higher than in cases without recurrence ($9.1 \pm 4.7\%$) ($p = 0.002$).

Conclusion: The evaluation of Ki-67 expression together with radiographic tumor boundaries could be used as prognosis parameters to predict higher recurrence risk of ameloblastoma and by thus assist in selecting an appropriate surgical plan.

エナメル上皮腫における上皮間葉転換に関する免疫重染色的検討

Double-immunostaining examination for epithelial mesenchymal transition in ameloblastoma

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【目的】上皮間葉転換 (Epithelial mesenchymal transition: EMT) とは, 上皮細胞が極性や細胞接着機能を失い遊走や浸潤能を獲得し, 間葉系の細胞へと変化するものである。そのためEMTは腫瘍の浸潤発育, 転移に大きく関わっている。エナメル上皮腫は, おもに顎骨内に発生し局所侵襲性に発育するので, エナメル上皮腫におけるEMTを明らかにするためSlugおよびTGF- β とE-Cadherinとの関連を免疫重染色法で検討した。

【材料および方法】生検および手術で摘出されたエナメル上皮腫37例 (濾胞型20例, 網状型17例) のホルマリン固定のパラフィン包埋試料を用いた。通法に従い脱パラフィン後, クエン酸緩衝液中で抗原の賦活を行った。はじめに, SlugまたはTGF- β と反応させ, その後Perma Blueで発色させた。ついで, それぞれにE-cadherinと反応させた後Perma Redで発色させ免疫重染色を行った。

【結果】SlugおよびTGF- β は, 腫瘍胞巣の周辺の細胞や星芒状細胞の核に発現していた。しかし, 発現のない細胞もみられた。Slugは, 強発現が20例, 弱発現が12例, 未発現が5例であった。TGF- β は, 強発現が19例, 弱発現が19例, 未発現が9例であった。E-cadherinは, 腫瘍細胞の細胞膜に発現し, 網状型エナメル上皮腫でE-cadherin発現の減弱が多くみられ, その部位にSlugやTGF- β が逆に発現していた。とくに, Buddingの部位にもその傾向がみられた。濾胞型の胞巣では, E-Cadherinの発現の減弱は網状型に比べ少なかった。

【結論】SlugおよびTGF- β の発現部位にE-Cadherinの発現が減弱していたことから, エナメル上皮腫の局所侵襲性の発育にEMT関連因子であるSlug, TGF- β およびE-cadherinが関与していることが示唆される。

Epithelial mesenchymal transition (EMT) denote the transition of epithelial cells into motile mesenchymal cells and in related to invasion and metastasis of cancer cells. As ameloblastoma are characterized by local invasiveness, EMT may be related to the development of ameloblastoma. EMT was examined by double immunohistochemistry for the expression of Slug, TGF- β and E-cadherin in ameloblastomas. The expression of Slug and TGF- β was increased in activity in the region where the expression of E-cadherin was reduced. Thus, Slug, TGF- β and E-cadherin seem to be related to the local invasiveness of ameloblastoma.

一般演題 ポスター6

General Poster 6

Chair : Prof. Kenji Mishima (*Department of Oral Diagnostic Sciences, School of Dentistry, Showa University*)

Detection of KRAS Missense Mutations in Adenomatoid Odontogenic Tumor

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Adenomatoid odontogenic tumor (AOT) is a benign odontogenic tumor, which derives from odontogenic epithelium of the dental lamina in the gubernacular cord. However, genetic abnormalities for tumorigenesis of AOT are unclear. The aim of this study was to analyze important cancer-related genes on AOT. A total of 4 AOT cases were selected from our pathology archives and the formalin-fixed paraffin-embedded (FFPE) samples were used for the study. First, the cells from tumor nests and stroma from one of the cases were collected respectively with a laser microdissection, and genomic DNA was extracted from each sample. Gene analyses for 50 cancer-related genes were performed using the next-generation sequencing. A KRAS G12D missense mutation was detected in DNA sequence from the tumor cells, and was not detected in that from the stroma tissue. Secondly, KRAS mutations were analyzed on the remaining 3 AOT cases by PCR-rSSO method. A KRAS G12R missense mutation was detected from a case, and the other 2 cases were negative. Activating mutation in KRAS will result in EGFR independent cell proliferation, and our findings might be helpful to clarify the etiology of AOT.

エナメル上皮線維腫における Wnt の免疫組織化学的検討 Immunohistochemical examination of Wnt in ameloblastic fibroma

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【緒言】 歯の形成は歯原性上皮と間葉組織の複雑な相互作用のプロセスの下に進行する。このプロセスには様々なシグナル伝達系が作用し、歯原性腫瘍の発生発育にも密接に影響を及ぼしている。Wntは上皮間葉間シグナル伝達を介して歯の発生に関与しており、歯原性腫瘍の発生、細胞分化への関連も示唆されている。そこで、上皮と間葉由来の腫瘍成分からなる混合性歯原性腫瘍のエナメル上皮線維腫について、Wntシグナル関連因子の発現状況を免疫組織化学的に検討した。

【材料・方法】 研究材料は、愛知学院大学歯学部口腔病理学講座にて取り扱われ、WHOの分類に基づく典型的な組織像を呈するエナメル上皮線維腫6症例である。対照としては、エナメル上皮腫8症例、歯原性粘液腫5症例を検索に用いた。各症例について通法に従い厚さ4 μ mのパラフィン切片を作製し、Wnt-1と β -cateninの発現を蛍光免疫染色にて比較検討した。

【結果】 Wnt-1は主としてエナメル上皮線維腫の上皮細胞に陽性を示した。陽性像は胞巣部の立方形もしくは円柱状の細胞で強い傾向があった。間葉成分における染色性は部位によって様々であった。対照のエナメル上皮腫でも同様の染色傾向であった。一方、歯原性粘液腫では腫瘍細胞は陰性であった。 β -cateninはエナメル上皮線維腫の上皮細胞と間葉の両者に陽性像がみられた。腫瘍胞巣では細胞質と細胞膜が陽性で、間葉部分では胞巣周囲の紡錘形細胞に陽性を示した。対照では、エナメル上皮腫の腫瘍胞巣で類似の傾向があったが、同腫瘍間質と歯原性粘液腫では β -cateninの陽性像は無かった。

【考察】 以上の結果から、エナメル上皮線維腫では上皮-間葉間にWntシグナルの活性化があり、エナメル上皮腫や歯原性粘液腫の細胞とはWntシグナルの作用状況が大きく異なっていることが推測された。このことはWntシグナルが腫瘍形成における上皮と間葉の相互作用に関連性を有し、細胞の分化や、歯原性上皮と歯原性外胚葉性間葉における腫瘍組織特異的な性格の獲得への関与を示唆するものであろう。

The epithelial-mesenchymal interaction is directly reflects the development of odontogenic neoplasms. Therefore, we have examined Wnt signaling in ameloblastic fibromas, with ameloblastomas and odontogenic myxomas as controls. In these specimens, Wnt-1-positive-products were present mainly in the epithelial components in ameloblastic fibromas and ameloblastomas, but negative in the odontogenic myxomas. β -catenin-positive-products were present in the epithelial and ectomesenchymal components in the ameloblastic fibromas, but negative in the stromal components of ameloblastomas and odontogenic myxomas. These examination results suggest that Wnt signaling plays important roles in cytological differentiation of tissue-specific characteristics between odontogenic epithelium and ectomesenchymal tissues.

Cornified cell envelope related proteins in ghost cells

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Ghost cells sometimes appear in odontogenic tumors such as calcifying cystic odontogenic tumor (CCOT) and dentinogenic ghost cell tumor (DGCT). Some investigator report that ghost cells are formed by keratinization of odontogenic epithelium. Cornified cell envelope (CE) is an important structure for keratinization. Therefore, we determine the localization of CE related proteins such as transglutaminase (TGM) and small proline rich protein (SPR) in ghost cells.

All specimens were selected from archived files in the Laboratory of Surgical Pathology, Matsumoto Dental University Hospital. We selected seven cases of CCOT and DGCT. Sixteen cases of normal epithelium of gingiva served as controls. Localizations of TGM1, TGM3, SPR1A, SPR1B, SPR2 and SPR3 were immunohistologically analysed. In controls, TGM1 distributed in cytoplasm of spinous and keratinized cells. TGM3 was positive in cytoplasm of all layers, and membranes of spinous and cornified cells. SPR1A was positive in nuclei of basal and spinous cells. SPR1B was distributed in cytoplasm of spinous cells. SPR2 was found in nuclei of basal and spinous cells, and cytoplasm of spinous cells. SPR3 was localized in cytoplasm of upper spinous cells. In odontogenic tumors, TGM1 and TGM3 were distributed in cytoplasm of stellate-reticulum like cells around ghost cells. SPR1B was membranes and cytoplasmic positive in ghost cells. SPR2 was localized in cytoplasm of ghost cells. SPR1A and SPR3 were slightly positive in membranes of ghost cells. These results suggest that CE related proteins play important roles in formation of ghost cells.

一般演題 ポスター7

General Poster 7

Chair : Prof. Uranchimeg Dolgorjav (*Department of Oral and Maxillo-facial Surgery, School of Dentistry, Mongolian National University of Medical Science*)
Dr. Sadamitsu Hashimoto (*Department of Biology, Tokyo Dental College*)

Odontogenic tumors in Myanmar: an analysis of 243 cases

Swe Swe Win

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Aim: To determine the relative frequency and distribution of different types of odontogenic tumors of specific institution in Myanmar

Materials and methods: Total 2819 oral biopsy records were evaluated for odontogenic tumors according to new World Health Organization (WHO) 2005 from Department of Oral and Medicine and Pathology, University of Dental Medicine, Yangon, Myanmar from 2010 to 2014. Data such as gender, age, anatomical site, histological types were analyzed.

Results: 243 odontogenic tumors (8.6%) were recorded of all biopsied lesions. Ameloblastoma was the most common odontogenic tumor (62.1%) with mean age of 34.78, followed by keratocystic odontogenic tumor (15.6%, mean age 33.37), ossifying fibroma (7.81%, mean age 36) and malignant tumors were about 2%.

Conclusion: In Myanmar, ameloblastoma was the most common benign odontogenic tumors with 1:1.2 male to female ratio. It occurred more frequently in the second and third decades of life and the most common site is posterior mandible.

ODONTOGENIC TUMORS – 20 YEARS INSTITUTION EXPERIENCE FROM SOUTH INDIA

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Ninety-three cases of odontogenic tumors were reported over a period of 20 years from 1995 to 2016. They were classified on the basis of WHO histological classification of odontogenic tumors (2005). There were 79 tumors from the odontogenic epithelium 5 from the odontogenic ectomesenchyme and 9 from both the odontogenic epithelium and ectomesenchyme. According to the anatomic location, 77 cases were present in the mandible and 16 cases in the maxilla. The age group ranged from one year to 80 years; 40 cases were in females and 53 in males. In the study group, 21 cases were recurrent lesions. The salient feature of this cohort will be discussed, with focus on atypical features.

Current situation of oral diseases in Yemen

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During the period between 2008 and 2013, Oral and maxillofacial department in TMGH hospital (That is considered to be the biggest and most referred to hospital in Yemen) received 1585 cases that included: Neoplasms, Trauma, Salivary gland diseases and open wound injuries. The neoplasm ranked the 2nd highest among the received patients forming up to 27% of the total received cases. Highest affected age group was the group of patients in their 50s followed by steady decrease in the number of patients in correlation to the age. Age distribution was similar among the affected patients in both females and males, however the number of female patients was higher than males in both malignant and benign neoplasms. When comparing the number of affected patients in terms of malignancy and benign nature of the neoplasm, it was found out that 92.96% of the neoplasms were malignant compared to only 7.14% benign neoplasms. It can be concluded that neoplasm is a serious problem in Yemen. Number of affected patients with malignancy is alarming especially when compared to the benign cases. Another note to be taken is the higher female to male ratio both in benign and malignant cases which needs to be further investigated. In addition to the aforementioned correlation between age and cases being affected by neoplasm, the decrease in the number of cases when compared to age can be interpreted by reflecting the life expectancy of the average Yemeni individual which is about 62.91 according to World Bank stats in 2012.

Current situation of oral diseases in rural Mongolia

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Clinical Pathophysiology Department, Tokyo Dental College

Oral healthcare is important yet often ignored subject in the medical field in the developing countries. In case of Mongolia, development of dentistry in remote areas lags far behind other developing countries. Caries, periodontal disease and squamous cell carcinoma are the most common diseases of the oral cavity among Mongolian population. According to the survey done by MNUMS, 90 percent of the population suffers from oral diseases nationwide. Dental caries is the most common and it tops in children. Screening and dental treatment performed on 71 individuals from a remote village in northern Mongolia reveals that 89% of the patients had dental caries, which supports a previous study. We discovered that the dental caries is the biggest threat to children' oral health. DMF indication of Tsagaan Uur soum found much higher than that of the standard 0.3 for developed countries. Even for 2 year-old children, dmf indication was 10 times higher than the international standards. There were cases including fluorosis, gingivitis, rampant caries and epulis. Oftentimes the squamous cell carcinoma is being diagnosed in later stages greatly affects the prognosis of the disease. There are over 2000 registered dentists in Mongolia without any oral pathologists. We conclude that more cooperation from professionals, especially oral pathologists in the dental field as well as efforts from regional government is necessary in order to improve accessibility and the quality of dental treatment and early diagnosis of SCC in rural villages.

一般演題 ポスター8

General Poster 8

Chair : Dr. Kimihide Kusafuka (*Pathology Division, Shizuoka Cancer Center*)

頬部に生じた孤立性線維性腫瘍の一例 A case of solitary fibrous tumor of buccal region

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【緒言】孤立性線維性腫瘍は紡錘形細胞と膠原線維が多彩な増殖形態を示す腫瘍で、身体各部での発生例が報告されている。頭頸部の発生も多いとされるが本邦における報告例は50例に満たない。今回我々は頬部に生じた孤立性線維性腫瘍の1例を経験したので報告する。

【症例】22歳、男性。既往歴に特記すべき事項は無い。

【現病歴】1年半ほど前に、右側頬部のしこりを自覚。軽度疼痛も感じたがその後消失したため放置。最近になって近医歯科に同腫瘍を指摘され、精査のため本学附属病院口腔外科を受診。

【現症】顔貌所見で非対称性は明らかでないが、触診にて右側頬部に径30mmほどの弾性硬、可動性(±)の腫瘍を触れた。MRIにて咬筋に接する境界明瞭、T1、T2強調で高信号を示す腫瘍が認められた。唾液腺腫瘍、神経原性腫瘍などを疑い摘出術を行うこととなった。

【手術時所見】腫瘍は頬筋と咬筋の間に存在し、肉眼的に被膜を有していたが、一部で咬筋と下顎骨膜に癒着しており一塊としての摘出はできなかった。

【摘出物肉眼所見】大きさは最大径3cmで、出血や壊死は見られなかった。

【病理組織学的所見】腫瘍は紡錘形細胞の増殖よりなっており、被膜も部分的に認められた。核異型や分裂像は目立たない。Stag-horn様の血管が見られ、その周囲性に腫瘍細胞が増殖する部分や、いわゆるpatternless patternを示す増殖形態が認められた。免疫組織化学染色で、腫瘍細胞はCD34、Bcl-2に陽性、S-100 protein、Cytokeratin (AE1/AE3) が陰性、Ki-67 indexは2-3%であった。以上の所見から病理組織学的に孤立性線維性腫瘍と診断した。術後10ヶ月時点で再発等は見られていない。

【結語】孤立性線維性腫瘍は当初胸膜に発生する病変として報告されたが、免疫組織化学的検索方法の確立などにより全身諸臓器での発生例が報告されている。頭頸部も比較的多く発生する部位とされる。本病変には悪性型もあり細胞分裂像数や腫瘍径、壊死の存在などが指標とされるが、自検例ではこれらの所見は見られなかった。再発の要因としては完全切除か否かが問題とされる。本症例では腫瘍が一塊として摘出できておらず、嚴重なフォローアップが必要と考えている。

Solitary fibrous tumor (SFT) is a rare soft tissue tumor with benign behavior in general. SFT of the oral cavity is not so rare but there are less than 50 reports in Japan. We report a case of SFT arose in a 22-year-old man. The tumor was existed under the buccal mucosa and attached to the masseter and periosteum of the mandible. It was approximately 26mm in diameter by MR image. Histological examination showed proliferation of spindle-shaped cells with a patternless pattern and stag-horn like vessels are also seen. Immunohistochemically, the tumor cells were positive for CD34 and Bcl-2.

Giant cell tumor, lymph node-reactive lymphadenitis

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The patient Munkhbat, 10 years old, male. He had got operation in National Center for Maternal and Child Health of Mongolia, Department of child Maxillofacial Surgery.

In February 2015 the caries pain was started. During this year patient was rinsed oral without any treatment. In March 2016 it was bloated at right side. National Cancer Center of Mongolia they diagnosed by the biopsy DS: Giant cell tumor, lymph node-reactive lymphadenitis.

In April of 29th, 2016 he had got operation in National Center of Maternal and Child Health of Mongolia, Department of child Maxillofacial Surgery. We resected the right side of mandible. We scan in here all of our pictures before the operation, after the operation and path-histology.

下顎歯肉にみられた形質芽球性リンパ腫の1例

Histopathological study of a case of plasmablastic lymphoma arising at mandibular gingiva

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【緒 言】形質芽球性リンパ腫は免疫芽球様の大型B細胞のびまん性増殖を特徴とし、B細胞ではなく形質細胞への分化をもつまれな疾患である。今回、第26回日本臨床口腔病理学会において発表を行った『左側下顎歯肉に生じたNK/T細胞リンパ腫の病理組織学的検討』を再検討した結果、形質芽球性リンパ腫と最終診断に至った1例について報告する。

【症 例】70歳代の男性。主訴：下顎歯肉の違和感。既往歴：慢性副鼻腔炎、頸椎狭窄症、再生不良性貧血の疑い。家族歴：特記事項なし。現病歴：20XX年4月かかりつけ歯科医院にて左側下顎第一大臼歯抜歯術を受けたが、腫脹改善せず創部治癒不全のため5月と7月に抜歯窩搔爬術を受けるも症状改善しなかった。8月に左側オトガイ部～下顎歯肉に知覚鈍麻出現。9月に紹介病院歯科口腔外科を受診。腫瘍が考えられ精査・加療を目的に当院紹介来院。現症：全身所見：来院する前に倒れたバイクを起こす際に足に当たり骨折治療後のため違和感あり。また肩、背、胸部に皮疹がみられた。口腔外所見：顔面は左右対称で、左側顎下部に圧痛を認めたが、頸部リンパ節に腫脹は認められなかった。左側オトガイ神経領域の知覚鈍麻がみられた。口腔内所見：左側下顎歯肉部に29×25mm大の硬結を伴う辺縁不整の腫瘤を認めた。画像診断所見：CTでは左側下顎骨内にびまん性骨吸収像が認められ、周囲皮質骨は粗造であった。処置・経過：初診時に下顎歯肉の生検術が行われた。血液データでは、s-IL2Rが高値を示した。

【病理組織学的所見および診断】歯肉上皮下に大型のリンパ球様腫瘍細胞の著しい増殖がみられ、アポトーシスや高度の細胞異型・核異型、核分裂像が認められた。免疫組織化学染色では、CD3 ϵ 、CD45RO、CD4、CD8が一部で陽性で、CD20、CD79 α は陰性であった。CD56は陽性、CD30はごく僅かに陽性、ALKは陰性であった、MIB-1 (Ki-67) indexは90%以上であった。その後の追加染色による再検討の結果、CD138 (+)とEBER (-)、Granzyme B (-)であったことからplasmablastic lymphomaと診断した。

Plasmablastic lymphoma is one of rare malignant lymphoma. We reported a case of NK/T cell lymphoma in 2015 JSOP. We reviewed again and diagnosed plasmablastic lymphoma. We present about this case. Patient is 70s male. Chief complaint was uncomfortable feeling of the left mandibular gingiva. Partial biopsy was performed and the biopsy specimen revealed large tumor cells, apoptosis, highly cellular atypia nuclear atypia and abnormal mitosis. Immunohistochemical analysis showed CD3 ϵ , CD45RO, CD4, CD8 were partially positive and CD20, CD79 α were negative. After 2015 JSOP, we diagnosed plasmablastic lymphoma because CD138 was positive and EBER, Granzyme B were negative.

一般演題 ポスター9

General Poster 9

Chair : Dr. Tadahiko Utsunomiya (*Department of Oral Pathology, Nihon University School of Dentistry at Matsudo*)

Spindle Cell Carcinoma of the Palatine Tonsil: A Case Report

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Introduction; Spindle cell carcinoma (SPCC) of the head and neck is a rare subtype of squamous cell carcinoma (SCC). Although SPCC is mostly found in the larynx, it may also occur in the hypopharynx and oral cavity. Till date, to the best of my knowledge, only four cases of SPCC of the palatine tonsil have been reported in Japan. This report describes a case of SPCC occurring in the left palatine tonsil. Case Report; A 75-year-old male presented with swelling of the throat and dysphagia. A pedunculated tumor in the left palatine tonsil was diagnosed as SCC using cytology but as malignant spindle cell tumor using tissue biopsy. Computed tomography scans revealed that the tumor was not deeply infiltrative. 60 × 35 mm tumor with a white surface of homogenous appearance was removed. According to microscopic findings, the tumor was composed of malignant spindle cells infiltrating the stroma and invasive and in-situ SCC. Immunohistochemical studies showed that the SCC cells were positive for AE1/AE3, CK7, and CK19 markers. The spindle cells were negative or showed only weak focal positivity but were strongly positive for vimentin and negative for desmin, SMA, CD34, HMB45, c-kit, CD45, and CD99. The final diagnosis was SPCC, pT3N1Mx. The patient received postoperative radiotherapy and remained relapse-free for 2 years. Conclusion; The prognosis of head and neck SPCC is related to its location, depth of invasion, and stage of disease. SPCC of the palatine tonsil is rare, and frequent long-term follow-ups should be considered.

若年者の下顎歯肉に原発し診断に苦慮した基底細胞癌の一例 A difficult diagnostic case of Basal Cell Carcinoma arising from young mandibular gingiva

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歯科口腔領域の悪性腫瘍は90%が扁平上皮癌であり、中でも角化傾向を示す高分化型扁平上皮癌が多い。しかしながら、扁平上皮癌には疣贅性癌、腺様扁平上皮癌、紡錘細胞癌、基底細胞癌と通常とは異なる組織像を呈した亜型が見られることがあり、時に病理診断に苦慮する場合もある。今回、我々は若年者の下顎歯肉に原発し診断に苦慮した基底細胞癌の一例を経験したので報告する。症例は22歳男性、下顎右側臼歯の動揺を主訴として当院口腔外科を受診した。CTにて下顎歯肉の浸潤性破壊性変化と頸部リンパ節転移を示す病変が認められた。生検では確定診断が得られなかったが悪性上皮性腫瘍の診断の下、外科的切除となった。病理組織学的所見では、卵円形核でN/C比の大きい基底細胞癌様の腫瘍細胞が胞巣を形成しながら増殖しており、索状、小島状となって顎骨内に境界不明瞭に浸潤、進展する像が顕著に観察された。胞巣には腫瘍細胞の柵状配列やメラニン色素沈着もみられた。免疫組織化学染色を行ったところ、腫瘍はAE1/AE3陽性、S-100タンパク、HMB45陽性、CK19一部弱陽性、p53陽性を示し、CEA、EMAともに陰性であったが、Ki67陽性細胞が目立ち、高い増殖活性がうかがわれた。これらの所見からはエナメル上皮癌などの悪性歯原性腫瘍や転移性腫瘍、悪性黒色腫などの鑑別として考えられたが、最終的に基底細胞癌の病理組織学的診断に至った。今回我々は統計的にも数少なく悪性歯原性腫瘍や転移性腫瘍との鑑別において苦慮した基底細胞癌の一例を経験したので、若干の文献的考察も加え報告する。

We present a basal cell carcinoma that arose from the mandibular gingiva of a 22yaers-old male. Cytological, the diagnosis was class V, it suspected with diagnosis of a malignant epithelial tumor. Histologically, tumor cells had high nucleus to cytoplasm ratio, oval nuclei, and resembled basal cells, were proliferating while making cancer nests. Immunohistochemically, the tumor was positive for AE1/AE3, S-100 protein, HMB45, and Ki67. The positive cells for Ki67 had high proliferative activity. The tumor was negative for CEA and EMA. From these findings, we finally diagnosed this case as a basal cell carcinoma.

細胞診で悪性黒色腫が疑われた口底部基底細胞癌の一例 A case of basal cell carcinoma of floor of mouth mimicking malignant melanoma in cytology

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症例は86歳の男性。口底部の違和感を主訴として当院歯科口腔外科に紹介受診された。初診時、口底部に粘膜の発赤とともに点状の黒色斑を認めたため擦過細胞診を行った。細胞診では上皮細胞様の異型細胞集塊が散見され、扁平上皮癌が最も疑われたが、細胞質内にメラニン顆粒を含む異型細胞が少数観察されたため、悪性黒色腫の可能性を否定できなかった。しかしながら、病理組織学的にはメラノーマ細胞はみられず、被覆上皮内に基底細胞様の異型細胞が増殖し、わずかに基底膜を越えて結節状に増殖浸潤していた。さらに腫瘍胞巣には細胞の柵状配列やメラニン色素沈着がみられた。免疫組織化学染色を行ったところ、腫瘍はBer-EP4に陽性を示した。以上の所見から基底細胞癌と診断した。今回我々は非常にまれな口腔の基底細胞癌の症例を経験したので報告する。

We present an extremely rare case of basal cell carcinoma arising in floor of mouth of 86-year old male. Cytologically, Atypical cells in which is including melanin granules the cytoplasm were seen, hence, this lesion was suspected malignant melanoma. Histologically, melanoma cell was not seen, however, basal cell like atypical cells were proliferated in the covering epithelium, and invaded to the stroma slightly showing the nodular growth pattern. Moreover, palisading of tumor cells and melanin pigmentation were observed in the alveolar. Immunohistochemically, the tumor was partially positive for Ber-EP4. Therefore, this case was diagnosed as basal cell carcinoma.

後発転移リンパ節に腺扁平上皮組織を認めた舌扁平上皮癌の1例

A case of adenosquamous carcinoma observed in the metastatic lymph node, but not in the primary lesion.

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【緒言】腺扁平上皮癌は同一癌病巣内に扁平上皮癌と腺癌の組織像を認める悪性度の高い癌である。今回われわれは、舌原発巣の組織型が扁平上皮癌であったが、後発転移リンパ節に腺扁平上皮癌を認めた症例について報告する。

【症例】患者：57歳、男性。現病歴と経過：左側舌縁の疼痛を伴う白斑を主訴に、近歯科医院から紹介にて九州大学病院顎口腔外科を受診した。初診時、左側舌縁中央部に25×15 mmの硬結を伴う、表面粗造な白斑を認めた。部分生検術を行い、高分化型扁平上皮癌の診断を得たため、舌部分切除術、ネオバールによる被覆術を施行した。切除物の病理診断も高分化型扁平上皮癌であった。その後当科外来にて経過観察していたが、術後2か月半後の超音波検査にて左側上内深頸領域のリンパ節に転移を認めたため、機能的頸部郭清術を施行した。その際、PETにて口腔と頸部以外に病変がないことを確認している。また、摘出したリンパ節に被膜外浸潤を認めたため、術後に化学放射線治療を施行した。

【原発巣及び転移リンパ節の病理組織学的所見】原発巣の切除組織は筋層深くまで島状・束状の扁平上皮様の癌細胞巣が浸潤しており、多数の癌真珠を認め、高分化型扁平上皮癌と診断した。明らかな脈管浸潤は認めなかった。また、郭清後の組織では転移リンパ節を8個認め、そのうち5個は被膜外浸潤を認めた。さらに5個の転移リンパ節において、扁平上皮癌組織中に腺管構造を認めた。免疫組織化学染色で、扁平上皮癌の部分はAE1/AE3とp40のいずれにも陽性を呈し、一方腺管構造を呈する部分はAE1/AE3陽性、p40陰性であった。

【考察と結語】転移リンパ節の組織像では扁平上皮癌と明らかな腺管構造を認め、腺扁平上皮癌と診断した。舌以外に他臓器で悪性腫瘍は発見されておらず、舌扁平上皮癌からの転移であると考えられた。

770/900

We report a case of adenosquamous carcinoma with secondary cervical lymph node metastases of well differentiated squamous cell carcinoma. A tumor occurred in the tongue of 57-year-old male was diagnosed as well-differentiated squamous cell carcinoma, and a partial glossectomy was performed. After Two and a half months, the metastatic lymph nodes were found and a functional neck dissection was carried out. Adenosquamous carcinoma was histopathologically detected in the metastatic lymph nodes.

一般演題 ポスター10

General Poster 10

Chair : Dr. Shuichi Fujita (*Department of Oral Pathology and Bone Metabolism,
Nagasaki University Graduate School of Biomedical Sciences*)

口腔扁平苔癬における上皮の異常角化：small proline rich proteinとtransglutaminaseの局在

Abnormal epithelial keratinization in oral lichen planus: localizations of small proline rich proteins and transglutaminases

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【諸言】口腔扁平苔癬（OLP）は病理組織学的に上皮組織の傷害と角化異常を示す。OLPにおける上皮下の免疫応答に関する研究は行われているが、角化に関する詳細は知られていない。角化には周辺帯の形成が重要で、基質タンパク質の細胞質内から細胞膜への移行およびTransglutaminase（TGM）による架橋結合により周辺帯が形成される。我々は周辺帯関連タンパク質であるSmall proline rich proteins（SPRs）、TGM1およびTGM3の分布をOLPで検索した。

【材料と方法】両側頬粘膜発症のOLP 9例をOLP群、頬粘膜 5例を対照群とした。SPR1a, SPR1b, SPR2, SPR3, TGM1およびTGM3を一次抗体として免疫染色を行った。

【結果】OLP群では、SPR1b, SPR2およびTGM1が有棘層全層の細胞質にびまん性に陽性を示し、細胞膜にも陽性であった。また、SPR1a, SPR3およびTGM3は有棘層上層の細胞質にびまん性に陽性を示し、細胞膜にも陽性であった。対照群では、TGM1が有棘層上層の細胞膜にのみ陽性を示した。また、SPR1a, SPR1b, SPR2, SPR3およびTGM3は有棘層全層の細胞質に点在性に陽性を示し、細胞膜には陰性であった。

【考察】OLPでは頬粘膜と異なりSPRsの全てが細胞膜へ移行していたことから、SPRsによる周辺帯形成が生じていることが確認できた。また、OLPではSPRsのいずれも細胞質にびまん性に存在していたことから、TGMの基質も豊富に産生されていると予想できる。

OLPでは頬粘膜と同様にTGM1が細胞膜に局在していたが、TGM3は頬粘膜と異なり細胞質だけでなく細胞膜にも局在していた。これらからOLPは角化異常が生じるためには、TGM1とTGM3の細胞膜における局在が極めて重要で、これらが共存することで架橋形成が起きると考えられる。さらに、SPR1bとSPR2の分布はTGM1と一致し、SPR1aとSPR3の分布はTGM3と一致していることから、SPR1bとSPR2をTGM1が、SPR1aとSPR3をTGM3が架橋する可能性がある。

以上から、TGMとSPRsの異常局在がOLPの異常角化に重要な役割を担うことが示唆された。

Oral lichen planus (OLP) is a mucositis with abnormal keratinization. We immunohistochemically examined localizations of small proline-rich proteins (SPRs) and transglutaminases (TGMs) in OLP and buccal mucosa as controls.

In contrast to results of controls, OLPs showed diffusely cytoplasmic and membranous positive reactions against all SPRs examined, and membranous positive reactions to both TGM1 and 3.

The membranous and cytoplasmic accumulation of SPRs could indicate the formation of cornified cell envelope and abundant substrates for TGMs. The co-expression of TGM 1 and 3 might play an important role in the cross-linking of SPRs resulting in abnormal keratinization of OLP.

口腔癌，特に上皮内癌を中心とする境界病変の診断で用いられている病理診断名とその概念の現状を把握するためのアンケート調査

The questionnaire survey to understand the current situation of the pathological terms on the borderline lesions of oral cancer.

日本臨床口腔病理学会 口腔癌診断基準検討委員会

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The Committee of Diagnostic Criteria for Oral Cancers,
The Japanese Society of Oral Pathology

【はじめに】口腔癌とその境界病変の病理診断に使用されている名称やその定義に関しては，WHO（2005）に加えて頭頸部癌取り扱い規約，口腔癌取り扱い規約がある。さらに各施設での病理診断医（以下，診断医）と臨床医との共通の理解と連携の下に施設独自の用語や解釈も存在している。日本臨床口腔病理学会では，口腔癌治療の均霑化のために不可欠である病理診断名とその概念の統一化を推進することを目的に，理事長の諮問委員会として「口腔癌診断基準検討委員会」が設置された。本委員会では，平成26年度に口腔癌とその境界病変の診断で用いられている病理診断名とその概念の現状を把握するために多施設に所属する診断医（病理医，口腔病理医）を対象としたアンケート調査を行った。【対象】歯科は日本臨床口腔病理学会理事および評議員。医科は本委員会委員を通じて依頼。【内容】設問1：施設。設問2：病理医，口腔病理医の別。設問3（8項目）：臨床診断が白板症(leukoplakia)の症例の組織所見に対して用いている病理診断名。設問4：口腔癌とその境界病変の病理診断で用いている規約や基準等。設問5：意見・要望など。【結果】総計96名の口腔病理医（35名）・病理医（61名）にご協力を頂いた。病理診断名は，反応性，境界病変のいずれにおいても診断医間でかなりの違いがみられた。また，用いている規約や基準については頭頸部癌取り扱い規約，口腔癌取り扱い規約，WHO（2005）が多いが，口腔病理医と病理医では異なる傾向があり，それが歯科と医科での病理診断名の違いとして現れたと考えられる結果であった。アンケートを通じて，口腔癌とその境界病変に関する概念や用語には，施設あるいは診断医間でかなりのばらつきがあることが明らかとなった。今後，病理診断の均霑化を図っていく上で，用語や概念の統一は喫緊の課題であると思われる。

The Japanese Society of Oral Pathology, with the aim to promote the criteria and terms of the pathological diagnosis of oral cancer The Committee of Diagnostic Criteria for Oral Cancers has been installed. In order to understand the current situation of the pathological terms that is used in the borderline lesions of oral cancer, the Committee was intended for pathologists a questionnaire survey was conducted. Through the questionnaire, the terms related to borderline lesions between the facilities or pathologists, it has become clear that there is considerable variation. The standardization of pathological diagnosis appears to be a pressing issue.

口腔表在性病変におけるP53免疫組織化学的検索の取り組み P53 immunohistochemical analysis of oral superficial carcinoma in Niigata University Hospital.

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【はじめに】これまでわれわれは口腔粘膜腫瘍の病理診断をより客観的かつ精確に実施するために免疫組織化学の導入が必要であることを具体的に提案してきた。そこで、今回は口腔表在癌におけるP53免疫組織化学的検索の有用性について検討した。

【材料と方法】2010年～2014年までの5年間に、新潟大学歯科病理検査室で受け付けた病理組織診断症例のなかで、異型上皮～扁平上皮癌までを含む口腔粘膜悪性境界病変に対してP53免疫組織化学を実施した症例について解析した。

【結果と考察】216件に対してP53免疫組織化学的検索がなされた。その結果P53免疫陽性のパターンが正常から浸潤癌までの各病変で明確な違いを示さない症例が多くみられ、簡単に評価ができないことがわかった。しかし異型上皮から上皮内癌および浸潤癌に移行するところでP53強陽性が出現するパターンや、逆に異型上皮から上皮内癌に移行するところでP53の陽性が消失するパターンをしめす症例もみられ、P53の発現動態を確認することで、sequence癌の病態の進行を推測することも可能であった。またわれわれが口腔悪性境界病変として考えている二層性異型上皮や正角化型異型上皮が隣接する上皮内癌や浸潤癌とP53免疫組織化学的には同じパターンをしめすことも確認された。以上の所見より、P53免疫組織化学だけでは単純に病変の評価は困難であるが、Keratin 13/17やki-67と併用することで、P53免疫組織化学が適切な補助手段となりうる可能性が示唆された。

We report p53 immunohistochemical search in oral superficial carcinomas including epithelial dysplasia to squamous cell carcinoma. The number of diagnostic pathology cases of them was in approximately 216 in the five years. The difference of p53 positive pattern was not clear in many cases including from dysplasia to an invasive squamous cell carcinoma. However, as for some cases, a change was seen in a p53-positive pattern by a progression of sequence oral carcinoma. Immunohistochemical search of p53 is useful to make the high diagnostic criteria more objectively and scientific diagnosis grounds by the results of research.

LAMC2 is a predictive marker for malignant progression of leukoplakia

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BACKGROUND: LAMC2 plays an important role in cancer invasion. The aim of this study was to investigate alterations in LAMC2 expression during the transition from oral leukoplakia to oral squamous cell carcinoma (OSCC) and to assess its diagnostic value.

MATERIALS AND METHODS: The expression of LAMC2 was examined by immunohistochemistry in 50 surgical specimens of advanced OSCC assembled as tissue microarrays. LAMC2 expression was further examined in 39 surgical specimens of early OSCC and 93 incisional biopsy specimens of leukoplakia of the tongue, which exhibited epithelial dysplasia. LAMC2 expression was evaluated by scoring stained cells and its relationship to clinico-pathological characteristics was analyzed.

RESULTS: LAMC2 was remarkably upregulated in OSCC at the cancer–stroma interface. The grade of LAMC2 expression was significantly associated with the pattern and depth of invasion and the tissue architecture of OSCC. Foci of LAMC2-positive basal cells were observed in some cases of leukoplakia. The number and size of LAMC2-positive foci were significantly associated with the grade of dysplasia. The presence of LAMC2-positive foci was a significant predictive factor for the malignant progression of leukoplakia. LAMC2-positive leukoplakia had an approximately 11-fold increased risk of malignancy compared with LAMC2-negative leukoplakia.

CONCLUSIONS: The study underscored the value of LAMC2 as a marker indicative of invasion. LAMC2-positive foci in leukoplakia suggest the imminent risk of cancer. LAMC2 immunostaining would assist diagnostic practice and contribute to a more precise assessment of the malignancy of leukoplakia.

一般演題 ポスター11

General Poster 11

Chair : Prof. Tamotsu Kiyoshima (*Laboratory of Oral Pathology, Faculty of
Dental Science, Kyushu University*)

p16INK4a expression in the Oral Verrucal-Papillary Lesions

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Objective: The aim of this study was to investigate the status of p16INK4a (p16) of the oral verrucal-papillary lesions.

Method: Sixty-five cases of the verrucal-papillary lesions (50 benign lesions and 15 malignant lesions) were enrolled in the study. Patient records on age, sex, lesions location, and diagnoses were collected. The tissue sections were immunostained with p16 antibody. Immunostaining results were evaluated and graded according to the percentage of positive p16 expressions and the intensity of staining. The final immunoreactive score was determined by multiplying the intensity scores with the extent of positivity scores of stained cells. Score of 4 or greater is considered positive for p16 expression. Statistical analysis was performed to determine the differences in protein expression between lesions.

Results: In our study, the verrucal-papillary lesions occurred in a wide age range (32-90), with an average age of 58.07 years and a 1:1.4 male to female ratio. The lesions were mostly seen in tongue (20%) and buccal/labial mucosa (20%). Immunohistochemical study of p16 found that 38 cases (76%) of the benign lesions were positive, while 15 cases (100%) of the malignant lesions were positive. The average immunoreactive score of the benign lesions was 5.90, whereas in malignant lesions was 9.47. The percentage of p16 positivity was statistically significant different between benign and malignant verrucal-papillary lesions ($p < 0.05$).

Conclusion: Our findings suggest that p16 expression in the oral verrucal-papillary lesions, in conjunction with clinical-histopathological examination, may be a useful tool in distinguish between benign and malignant lesions.

口腔扁平上皮癌におけるSOX9発現様式の解析 SOX9 expression in oral squamous cell carcinoma

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【緒言】 SRY-box 9 (SOX9) は軟骨発生や雄性決定に中心的な役割を果たす転写因子であるが、前立腺癌など種々の悪性腫瘍においてもSOX9が高発現し、腫瘍進展に関与することが知られている。しかしながら、口腔扁平上皮癌 (SCC) におけるSOX9の発現様式や機能は明らかにされていない。そこで、われわれは口腔SCCでのSOX9発現を免疫組織化学的に解析し、その機能を探った。

【材料・方法】 口腔SCC外科材料多数症例を対象に、正常上皮・異型上皮・上皮内癌の各段階を含む標本を抽出した。連続パラフィン切片を作製して、SOX9, Ki-67, perlecan等の免疫組織化学を行い、これら分子の発現パターンを検討した。

【結果・考察】 非腫瘍性上皮では、SOX9陽性はほぼ認められないが、異型上皮・上皮内癌と病変が進行するにつれて、傍基底細胞様細胞増殖域でSOX9陽性率が上昇していた。浸潤癌ではすべての腫瘍細胞がSOX9強陽性を示し、上皮内病変とは明瞭に対比された。SOX9陽性細胞は、非腫瘍性上皮～上皮内癌までKi-67発現域にほぼ同調またはやや広く分布していたが、浸潤癌巣での陽性細胞率はKi-67に比べSOX9がはるかに高率であった。また、perlecanは浸潤癌巣周囲の間質に陽性であった。以上の結果から、口腔SCCにおいて、SOX9高発現が増殖および浸潤に関連する可能性が示された。さらに、SOX9・perlecan免疫組織化学の組み合わせが、浸潤の有無の判定に有用であると考えられた。

SRY-box9 (SOX9), a key transcriptional factor that regulates chondrogenesis and sex determination, is also involved in progression of various types of human cancer. An immunohistochemical search was accomplished in the cases of an malignancy border lesion including oral epithelial dysplasia to squamous cell carcinoma (SCC). SOX9 was not detectable in normal epithelia, while the proliferating cells were positive for SOX9 in dysplasia and carcinoma in-situ. In SCC, strong staining for SOX9 was observed in most of the cells, around which perlecan staining was enhanced. These results suggested that SOX9 is related to growth and invasiveness of oral SCC.

口腔癌進展へのセマフォリンの関与

Involvement of semaphorins in the progression of oral cancer

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セマフォリンは、神経細胞において軸索伸長の方向性を決める物質として発見された分子である。多くのサブファミリーが存在し、癌進展を正負の両面から制御することが知られており、例えば3Eは乳癌の浸潤・転移を誘導し、4Dは頭頸部癌における血管新生を促進する一方、3Bは肺癌・腺癌での腫瘍細胞のアポトーシスを導き、3Fあるいは4Aは子宮頸癌、肺癌において血管形成阻害作用を示すことが報告されている。しかしながら、口腔におけるこれらの分子の癌進展への関与は不明な点が多い。

口腔癌組織における発現領域を調べるために、セマフォリン3B, 3D, 3E, 4A, 4D, 5Aに対する抗体を用いて免疫染色を行った結果、3E, 4A, 4Dが癌細胞において強発現していることが示された。また、5Aは筋組織での発現がみられたが、3B, 3Dは組織内での発現がみられなかった。

次いで、500 ng/mlの濃度のセマフォリン4Aおよび4Dのペプチド存在下で口腔癌由来細胞株（Ca9-22, HSC-2, HSC-3, HSC-4）を24時間培養した後、MTTアッセイを行って細胞増殖活性への影響を調べたところ、セマフォリンペプチドにより増殖活性が抑制され、特にHSC-2でその傾向が顕著であった。また、細胞移動への影響をスクラッチアッセイにより調べたところ、4Dペプチドにより今回用いたすべての癌細胞で移動能が促進される傾向にあったが、4AペプチドはHSC-4でのみ、わずかながら移動能促進傾向を示した。

以上の結果より、セマフォリンには多くのサブファミリーが存在するが、そのうち4Aと4Dが口腔癌において発現し、癌進展に関与している可能性が示唆された。

Semaphorin was initially identified as an axon guidance factor. It has been reported that semaphorin has many subfamilies and each of them acts as a positive or negative factor in cancer progression. However, the role of semaphorins in oral cancer is still unknown.

Immunohistochemistry showed the expression of semaphorin 3E, 4A and 4D was found in oral cancer tissue. In addition, 4A and 4D peptide promoted survival and migration of oral cancer cell lines.

These findings suggest that semaphorin subfamilies may promote the progression of oral cancer.

一般演題 ポスター12

General Poster 12

Chair : Dr. Dang Trieu Hung (*Department of Oral Pathology and Maxillofacial Surgery, School of Odonto-Stomatology , Hanoi Medical University*)

Prof. Naozumi Ishimaru (*Department of Oral Molecular Pathology, Institute of Biomedical Sciences, Tokushima University Graduate School*)

Overexpression of N-cadherin induces anti-apoptosis effects on cancer cells through TRAIL receptors and caspase pathway

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In head and neck squamous cell carcinoma (HNSCC), the aberrant expression of N-cadherin was considered to have an important role in malignant behaviours such as increasing the growth and invasiveness of cancer. However, the mechanism why N-cadherin increases cancer cell growth has not been clarified yet. In this study, overexpression of N-cadherin increases cancer cell growth via inducing anti-apoptosis. Apoptosis is a common property of multicellular organism to maintain the health of the body by eliminating old, unnecessary and unhealthy cells. Recent studies have found that TRAIL selectively induces apoptosis by reacting with its four receptors including DR-4 and DR-5 (death receptors) can transmit an apoptotic signal owing to death domain in their intracellular portion, while DcR-1 and DcR-2 (decoy receptor) lack that part, so both of them do not transmit an apoptotic signal. Overexpression of either DcR-1 or DcR-2 suppresses TRAIL-induced apoptosis. In this study, overexpression of N-cadherin induces DcR-2 expression and reduces DR-5 expression. Besides, we also found that a significantly positive relationship between N-cadherin and DcR-2 expression in HNSCC specimens. Moreover, those specimens with a lower apoptotic index showed a higher expression of N-cadherin and/or expression of DcR-2. N-cadherin induces cancer cell survival related to cleavage of caspases and PARP, through activation of MAPK/ERK and inhibition of NF- κ B/p65 phosphorylation, which has a very important role in apoptosis, to resist to chemotherapy.

Oral and esophageal tumorigenesis in conditional Notch1 knockout mouse model.

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(Introduction)

Recently, the genomic microarray and next generation sequencing technology have identified many genetic alteration associated with cancers. Among them, Notch1 inactivating mutation is frequently observed in head and neck squamous cell carcinoma. In normal epithelium, NOTCH1 is expressed in basal layer and seems to play an important role in their differentiation. Our previous study showed the reduction of NOTCH1 in the majority of human oral and esophageal cancers and precancerous lesions.

(Objective)

In this study, we aimed to investigate the role of Notch1 in oral and esophageal squamous neoplasia.

(Methods)

To study the effect of Notch1 reduction, we generated Notch1 conditional knockout (N1cKO) mice by CRISPR/Cas9 technology. The carcinogenesis assay induced by oral administration of 4-nitroquinoline-1-oxide (4NQO) was performed in the N1cKO mice and wild type littermate. The pathological changes of tongue and esophageal tissue were studied in different time points.

(Results)

After 4-NQO treatment, the hyperplastic and dysplastic changes of tongue and esophagus were noted in both N1cKO and wild type groups. However, the lesions found in the transgenic group showed higher number and more severity. The lesions exhibited reductions of NOTCH1, Keratin13 and Keratin 15, which were similar features in human lesions.

(Conclusion)

Our results indicate that inactivation of Notch1 appeared to increase the susceptibility of oro-esophageal squamous neoplasia, which suggests the function of Notch1 as a tumor suppressor in these tissue.

Apoptotic cell clearance upregulates cancer cell activities in oral squamous cell carcinoma

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Apoptotic cancer cells are cleaned by macrophages and also by the neighboring cancer cells. Based on a hypothesis that apoptotic cell clearance by living carcinoma cells (autoclearance) could contribute to cancer cell activities and tumor progression, we investigated a biological significance of this phenomenon using cultured cell lines derived from oral squamous cell carcinoma. When co-cultured with UV-induced apoptotic cells, the most of living cells engulfed apoptotic cells, and this engulfment was inhibited by Rac-1 inhibitor. Electron microscopy demonstrated the engulfed cells localized within the phagosomes, with which the lysosomes seem to fuse. Furthermore, co-culture with apoptotic cells enhanced migration and invasion, but co-culture with lysed (necrotic) cells did not. These results suggested that autoclearance may upregulate cancer cell activities. Control of autoclearance in cancer would open up a new direction for therapeutic intervention.

AU-rich element を持つmRNA安定化機構で制御される新しい腫瘍溶解アデノウイルス

Conditionally replicative adenovirus controlled by the AU-rich element containing mRNA stabilization system

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AU-rich element (ARE) is the RNA element which can enhance the rapid decay of mRNAs including those of the genes required for cell growth and proliferation. The degradation of ARE-mRNA is controlled by ARE-binding proteins, such as HuR. HuR is involved in the stabilization of ARE-mRNAs by export them to the cytoplasm of cells. In the vast majority of cancer cells, the amount of cytoplasmic HuR is up-regulated and ARE-mRNA is stabilized. Furthermore, the stabilization is co-related with the malignancy of cancer cells. Here we demonstrate the development of a new oncolytic adenovirus, which includes ARE in the 3'-untranslated region of E1A gene.

The high level of mRNA and protein of E1A were observed when the virus was infected into cancer cells, whereas it was very low level in the virus infected normal cells. In response to the E1A level, the production efficiency of the virus was very high in cultured cancer cells, such as HeLa, A549, H1299, and C33A. According to CPE assay, cancer cells were killed by the virus in a dose-dependent manner. In addition, the intratumoral injection of the virus was effective for the tumors produced in nude mice. These results indicate that the developed virus has potential as an oncolytic adenovirus.

一般演題 ポスター13

General Poster 13

Chair : Prof. Jing Xiao (*Department of Oral Pathology, College of Stomatology,
Dalian Medical University*)

Prof. Yuuichi Soeno (*Department of Pathology, School of Life Dentistry
at Tokyo, The Nippon Dental University*)

Cancer therapy by combining oncolytic adenovirus with anticancer drug

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Background: Conditionally replicative adenovirus (CRAd) is an attractive tool for cancer therapy. Oncolytic adenovirus has capacity to replicate in tumor cells while sparing normal cells, thus eliminating the tumor with minimum side effects. Cisplatin (CDDP) is one of the commonly used anticancer drugs, leading to tumor cell death by apoptosis. However, they act both on tumor and normal cells, thereby inducing strong side effects in patients. We recently developed adenovirus including AU-rich element (ARE) in the 3'-untranslated region of the E1A gene. The expression level of E1A was high when the virus infected cancer cells, but was very low in normal cells. In this study we examined the combination therapy with oncolytic adenovirus and cisplatin for cancer cells.

Materials and Methods: Human tumor cells were treated with oncolytic adenovirus alone, cisplatin alone or both in combinations. Viable cell numbers were analyzed by XTT assay. We also analyzed the localization of HuR after cisplatin treatment by western blot analysis.

Results: Our data showed that, the cytolytic activity was higher in combination therapy rather than drug or virus treatment alone. In addition, cisplatin treatment induced the cytoplasmic expression of HuR protein. These data suggest that cisplatin treatment causes cytoplasmic exportation and stabilization of E1A-ARE mRNA to enhance the replication of oncolytic adenovirus.

電解酸性機能水は核-細胞質においてp65 とp50 subunitsの移動を減弱することによって NF- κ B 活性を抑制する

Electrolytically generated acid functional water inhibits NF- κ B activity by attenuating nuclear-cytoplasmic shuttling of p65 and p50 subunits.

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【目的】

昨年, 同学会において FW が口腔扁平上皮癌細胞株 (Ca9-22) において IL-8 産生を抑制することを発表した。本研究では, FW による Ca9-22 における IL-8 産生抑制のメカニズムを検討することを目的とした。

【材料および方法】

Ca9-22 に電解酸性機能水 (FW: pH 2.7, 酸化還元電位 1,100 mV 以上, 遊離有効塩素濃度 20 ppm, 三浦電子社製) を作用させ IL-8 遺伝子発現, タンパク発現を real-time PCR および ELISA 法により測定した。また, IL-8 遺伝子発現に関与する転写調節因子 NF- κ B に対する FW の影響については luciferase assay により検討した。Reporter construct は, NF- κ B-binding site が存在する IL-8 遺伝子の 5'-untranslated region (WT) をもとに, NF- κ B-binding site を欠失させた (Δ KB) mutant を作製して Ca9-22 に遺伝子導入して検討した。さらに, NF- κ B subunits p65 および p50 の核-細胞質間の局在化については細胞分画と Western blot により検討した。

【結果および考察】

Ca9-22 に FW を作用後, 遺伝子発現およびタンパク分泌について検討したところ FW 作用群では有意に IL-8 遺伝子発現およびタンパク分泌の抑制が認められた。また, Luciferase assay の結果より, NF- κ B binding site を欠失させたものでは FW の luciferase 活性の減弱が抑制されることが分かった。すなわち, FW は NF- κ B 活性を抑制し, IL-8 発現を抑制する可能性が示唆された。そこで, FW の NF- κ B 活性抑制のメカニズムについて細胞分画と Western blot により検討したところ, 通常核内に局在している p65 は FW の作用により細胞質へ移動し, 逆に, 細胞質に局在している p50 は核内に移動する現象が認められた。

【結論】

FW は NF- κ B subunits p65 および p50 の細胞内局在を変化させることによってその活性を減弱し, IL-8 の産生を抑制する可能性が示唆された。

FW treatment altered the cellular distribution of NF- κ B subunits. P65 and p50 are in the nucleus and cytoplasm at the resting state, however they moved to nucleus and cytoplasm by FW treatment, respectively. The phenomenon indicated that FW might inhibit NF- κ B activity by attenuating nuclear-cytoplasmic shuttling of p65 and p50 subunits. These results suggested that FW might inhibit spontaneous IL-8 secretion by redistribution of the NF- κ B subunits p65 and p50 within the cells.

Rapid detection of EGFR and KRAS gene mutation by mutation oriented LAMP method

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【背景】 上皮成長因子受容体 (EGFR) 及びKirstenラット肉腫ウイルス癌遺伝子ホモログ (KRAS) 遺伝子の変異は, EGFRをターゲットとした分子標的薬の治療効果に影響をおよぼす。それゆえ, これらの遺伝子変異の検出は, 治療方法の決定に重要である。現在, 遺伝子変異の検出にはDNAシーケンス法, PCR-SSCP法, PCR-RFLP法などが用いられているが, 検索に時間を要するために緊急を要す患者へ速やかに治療を開始できない問題がある。

【目的・方法】 前述の問題を解決するために, 迅速で簡便な遺伝子変異検出方法の開発を目的とした。遺伝子増幅技術であるloop-mediated isothermal amplification (LAMP) 法を基盤とする変異特異的LAMP法を開発した。本法は, 変異型アレルでは遺伝子増幅が進行するが, 野生型アレルでは遺伝子増幅を抑制する。本法の試料には, EGFR遺伝子のコドン746-751と, KRAS遺伝子のコドン12, 13の変異が生じている細胞株を用いた。細胞株から核酸を抽出して変異検出実験に供した。さらに細胞株をリン酸緩衝液で煮沸し, 遠心した後の上清 (粗抽出サンプル) を検体とし, 同様に遺伝子変異の検出を試みた。

【結果】 本法を用いて検索したところ, EGFRおよびKRAS遺伝子変異を30分以内に検出することが可能であった。検出限界はEGFR遺伝子変異, KRAS遺伝子変異ともに10pgであり, ヒト体細胞1個に含まれる核酸量 (6.7pg) と近似値を示した。また細胞株から得られた粗抽出サンプルも本法のテンプレートとして利用可能であった。さらに変異型と野生型の細胞株それぞれから得られた核酸を混合して検討したところ, 変異型の遺伝子の割合が1-10%で検出可能であった。【結論】 本法は種々の癌遺伝子変異検出の方法になり得ると考えられた。またEGFRを標的としたがん治療において, 患者の層別化に有用と考えられた。現在, 非小細胞肺癌の臨床検体を試料とした検討を進めている。

Both of epidermal growth factor receptor (EGFR) and Kirsten rat sarcoma viral oncogene homolog (KRAS) gene mutation influences the therapeutic effect of anti-EGFR therapies. Therefore, the detection of these gene mutation is clinically important.

EGFR gene mutation at codons 746-751 and KRAS gene mutation at codons 12 and 13 in cancer cell lines were investigated. A loop-mediated isothermal amplification-based procedure was developed, which suppress amplification of the wild-type allele.

This procedure can detect the EGFR and KRAS gene mutations within 30 min. Moreover, boiled cells can work as template resources.

These results suggest a potential application for mutation detection tool.

ステージⅢ及びⅣの口腔扁平上皮癌患者における予後予測モデルの構築 Low-risk population among patients with TNM stages III and IV oral squamous cell carcinoma

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【目的】悪性腫瘍患者の病理組織診断の情報を確定診断のみならず、予後予測にも活用するため最も広く用いられているものにUICCの病期分類がある。解剖学的な広がりをもとにしたこの病期分類は悪性腫瘍患者の予後予測に有用であるが、同一の病期にある悪性腫瘍患者の予後を予測することができれば、さらに詳細な予後予測に役立つこととなり、臨床に貢献することが期待される。本研究は、進行期の扁平上皮癌であるにも関わらず予後がよい場合の条件を見出し、新たな予後予測モデルを構築することを目指して行われた。通常癌細胞の解剖学的な広がりや分化度が予後予測の情報として用いられているため、今回は生体の炎症反応・免疫反応に着目して予後との関連を検討した。

【方法】長崎大学口腔外科を受診し、外科的切除手術を受けたステージⅢ及びⅣの口腔扁平上皮癌患者41例の病理組織標本について、上皮内の微小膿瘍形成、間質のリンパ球浸潤、NK細胞の出現を病理組織学的に検討し、結果を腫瘍の分化度、浸潤様式及び他の臨床情報と合わせて多変量解析することで、予後予測モデルの構築を試みた。

【結果】41例のうち、31例が高分化型、5例が中分化型、5例が低分化型の扁平上皮癌であった。また、浸潤様式はJakobssonの分類で1及び2が20例、3及び4が21例であった。Cox回帰分析により、NK細胞の浸潤及び上皮内微小膿瘍の形成を用いたモデルが効果的に予後予測に寄与することがわかった。さらに、NK細胞の浸潤が軽度で、かつ上皮内微小膿瘍の形成が認められる症例はそれ以外の症例に比べて有意に生命予後が良く、このモデルが最も効果的に患者の予後を予測することを見出した。

【考察】進行癌の患者であっても比較的予後がよい場合、患者の炎症反応・免疫反応が関与していることが本研究結果から推察された。NK細胞が少ない群が多い群よりも予後がよい理由として、腫瘍の悪性度が高いとNK細胞の出現が起こりやすいことが考えられた。

A system auxiliary to the UICC classification might allow the prognosis of patients with malignant tumors at similar stages to be predicted. We generated a novel system with which to predict populations at low risk among patients with stages III and IV oral squamous cell carcinoma (OSCC). A logic regression analyses for 41 stages III and IV OSCC patients showed that the presence of intraepithelial microabscesses and a lower density of NK cells were significantly associated with a favorable prognosis. These results suggest that inflammatory host responses are useful for the prognostic prediction of patients with advanced malignant tumors.

一般演題 ポスター14

General Poster 14

Chair : Prof. Nguyen Thi Hong (*Department of oral pathology, University of Medicine and Pharmacy Ho Chi Minh City*)

Dr. Koji Yamanegi (*Department of Pathology, Hyogo College of Medicine*)

Shared molecular and pathological features among salivary duct carcinoma, prostate and breast cancers expressing androgen receptor and FOXA1

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Salivary duct carcinoma (SDC), an androgen receptor (AR)-positive malignancy, is a relatively rare salivary cancer characterized by extremely poor outcomes. The growth of SDC is reported to be androgen dependent. Although AR is considered as a therapeutic target and androgen deprivation therapy (ADT) might be effective in SDC based on its effect on other AR-expressing cancers, such as prostate cancer (PCa) and apocrine carcinoma of the breast (ACB), its detailed molecular gene signature in SDC is unclear. In this study we compared the morphology and immunoprofiles of SDC, PCa and ACB to reveal their shared features. Morphologically, SDC and ACB shared apocrine-like microscopic appearance. Strikingly, immunoprofiling revealed that AR and forkhead box protein A1 (FOXA1) were concomitantly expressed in SDC, PCa and ACB. FOXA1 is called a pioneering factor because it opens chromatin structure to recruit AR in PCa and ACB cells and contributes to establish AR-mediated gene expression programs. Therefore the expression of FOXA1 in SDC indicates that AR-regulated pathways might be active in SDC cells, thus providing evidence for AR-targeted therapy. Here we defined representative SDC as an “AR+/FOXA1+ tumor with apocrine-like microscopic appearance”. In addition, we showed that FOXA1 is down-regulated during ADT in a hormone-refractory SDC patient, similar to that observed in PCa, which might contribute in establishing stage-specific gene expression signatures. From these results we propose a novel model of SDC progression focused on AR and FOXA1-related pathways.

PTEN-mediated DNA repair and EMT inhibits the tumorigenesis of salivary adenoid cystic carcinoma

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Purpose: To investigate the underlying molecular mechanisms of PTEN (a potent tumor suppressor) loss in human salivary adenoid cystic carcinoma (SACC).

Methods: 50 of SACC samples were collected from the 9th People's Hospital of Shanghai Jiao Tong University and the Dalian Medical University and submitted to immunohistochemistry. After the analysis of a gene expression array performed on human SACC83 cells transfected with shPTEN/shControls, POLQ and WDR66 were selected and confirmed in the clinical samples by IHC. The association was evaluated between PTEN and POLQ/WDR66 expression, and the overall survival curves were carried out with the Kaplan-Meier method and the related log-rank tests.

Results: POLQ, which is related to DNA repair, and WDR66, which is related to Epithelial-Mesenchymal Transition, are significantly upregulated upon PTEN silencing. The immunohistochemical staining showed that POLQ and WDR66 expression patterns were similar in epithelial components; it is especially interesting that WDR66 shows strong staining in mesenchymal components in solid SACC. Most of the tubular or cribriform SACC retained PTEN expression, these cases exhibited high rate of undetected of POLQ and WDR66. In contrast, most solid SACC lost PTEN expression and almost all these cases showed high level of POLQ and WDR66 staining. PTEN is inversely correlated with POLQ and WDR66. Kaplan-Meier survival analysis also showed that patients with POLQ/WDR66 expression were significantly associated with shorter overall survival.

Conclusions: Our results indicate that expression of POLQ and WDR66 related with loss of PTEN in SACC expression, and it may provide a new clinical treatment strategy of SACC.

The Difference of Saliva Allele between Javanese and Chinese Race in Forensic Identification

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Background: Currently, Combined DNA Index System CODIS had been verified as a tool of identification in Forensic. One of the DNA examination could be taken from saliva samples. CODIS was designed to compare a target DNA records against the DNA records contained in the database, and using software it could be matched for identification. However, there were 13 CODIS loci; there for it needs more expenses and more time. Especially this method needed PCR and STR DNA which are considered relatively expensive. Purpose: To evaluate a simplified method, hence, less CODIS needed, to verify a good result as well as less time. Method: Saliva 20 participant with age 17-21 years old, divided into 2 groups, that are Javanese and Chinese Race. Each group consist at 10 participant. The saliva was examined with Short Tandem Repeat (STR) and Polymerase Chain Reaction (PCR) in 3 loci: D5S818; D13S317 and D3S1358. Result: Compare to the standard DNA K562 there were differences of Base Pare in Bands between Javanese and Chinese Race in 3 loci: D5S818; Javanese is 11,12; Chinese is 12,13. In D13S317; Javanese 10,10; Chinese 8,10. In D3S1358; Javanese 16,17; Chinese 17,17. Conclusion: By using the 3 loci, we can differentiate Javanese and Chinese Race. However further reseach with more sample and gender differences must be done.

口腔と中咽頭におけるHPV16感染と臨床病理学的指標との関係について Association of clinicopathological factors with HPV16 infection in oral cavity and oropharynx.

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目的：口腔と中咽頭におけるHPV16感染の危険因子を明らかにする目的で、含漱サンプルを用いてHPV16陽性率と臨床病理学的指標との関係を検討した。

方法：広島大学病院・口腔顎顔面再建外科を受診した患者で、本研究に同意の得られた94人を対象とした。口腔癌や粘膜疾患を有する患者は対象から除外した。口腔含嗽と咽頭含嗽から得られたサンプルからDNAを抽出し、HPV16に特異的なプライマーを用いてPCRにてHPV16の検出を行った。さらにReal time PCRにて1細胞あたりのHPV16 DNAのコピー数を算出した。

結果：口腔含嗽サンプル94例中15例（16.0%）、咽頭含嗽サンプル27例（27.8%）でHPV16陽性であった。また、口腔含嗽サンプルにおいて、男性のHPV16陽性率は26.8%、女性のHPV16陽性率は7.5%で、HPV16陽性率は男性において有意に高かった（ $p=0.021$ ）。また、口腔含嗽および咽頭含嗽サンプルの両方において、喫煙者は非喫煙者に比べてHPV16陽性率が高かった。また、対象者を20～59歳までと60～89歳までの二群に分け、HPV16陽性率を比較検討したところ、咽頭含嗽サンプルでは60～89歳群は20～59歳群と比較して、HPV16陽性率が3.1倍高いことが明らかとなった。さらに、HPV16 DNAのコピー数は、口腔含嗽サンプルでは1細胞あたり 0.16 ± 0.27 個、咽頭含嗽サンプルでは 1.35 ± 1.26 個で、咽頭含嗽サンプルにおいてHPV16 DNA コピー数は有意に高い値を示した（ $p < 0.001$ ）。

考察：中咽頭は口腔内と比較してHPV16陽性率が高く、このことはHPV関連中咽頭癌がHPV関連口腔癌と比較して多いことに関連していると考えられた。また、男性は口腔内のHPV16感染の危険因子であることが明らかとなった。さらに喫煙や高齢が中咽頭のHPV16感染に関与している可能性が示唆され、禁煙や高齢者の口腔内衛生環境の改善がHPVの感染予防において重要であると考えられた。

The subjects were 94 individuals who visited the Department of Oral and Maxillofacial Reconstructive Surgery of Hiroshima University Hospital. Oral epithelial cells were collected from oral rinse and pharynx gargle samples. DNA samples were tested for HPV16 DNA by PCR using a type-specific primer. Males showed a higher rate of HPV16 prevalence than females (26.8% vs. 7.5%) in the oral rinse samples. The percentage of HPV16-positive cases was higher in the gargle (28.7%) as compared to the rinse (16.0%) samples. Our findings suggest that the oropharynx is more susceptible to HPV16 infection as compared to the oral cavity.

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第27回日本臨床口腔病理学会総会・学術大会開催に際しましては，下記の企業，団体よりご協力頂きました。
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