Case Report

指導老師：林立民、陳玉昆、王文岑、陳靜怡醫師
報告者：Intern G 組 張啟源、鄧聖霖、戴宇昀、何盈興
Name: 蔡昇峰
Gender: male
Age: 23
Native: Taiwan
Occupation: 勞工
Attending V.S.: 王文岑醫師
First visit: 2007/02/14
Chief Complaint

- Pain over L’t lower molar area since February 2007.
Present Illness

- This 22 y/o male suffered from episode for 2~3 days. He said his tooth fractured during chewing. Then teeth over L’t lower posterior area became pain. He came to LDC, then the doctor suggested him to our OPD for further exam.

- OPD had biopsy of L’t edentulous ridge showed osteomyelitis(2.14.2007) and inflammatory fibrous hyperplasia(2.23.2007). Clindamycin was prescribed.

- However, he felt teeth pain aggravated. Biopsy was performed again over bilateral mandible and maxilla(3.13.2008).
## Past History

- **Past Medical History**
  - Aspirin allergy

- **Past Dental History**

<table>
<thead>
<tr>
<th>日期</th>
<th>CC</th>
<th>Dx</th>
<th>Specimen</th>
</tr>
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<tbody>
<tr>
<td>20070214</td>
<td>L’t Md. pain</td>
<td>Osteomyelitis, 35,36</td>
<td></td>
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<tr>
<td>20070221</td>
<td></td>
<td>Extraction of Retained dental root (distal root of 36)</td>
<td></td>
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<tr>
<td>20070227</td>
<td></td>
<td>Other disturbances of oral epithelium, including tongue</td>
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</tr>
<tr>
<td>20070416</td>
<td></td>
<td>Periodontitis</td>
<td></td>
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<tr>
<td>20070418、25</td>
<td></td>
<td>Periodontitis</td>
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</tr>
</tbody>
</table>

H-P: Ulcer with subacute inflammation (edentulous ridge of 36)

Inflammatory fibrous hyperplasia (edentulous ridge of 36)
Personal History

- Alcohol : (+)
- Betel nut : (+)
- Cigarette : (+)
  - 1 package / day
Intraoral Examination

- 16 Elongation
- 16 Root exposure
- 16 17 Dehiscence
- Gingival swelling
- Gingival inflammation
- Alveolar bone resorption

2008.03.13
Intraoral Examination (cont.)

- 17 un-healing tooth socket located between tooth 16 & 18 measuring 1.5X1.5cm
- Color: pink
- No pus discharge
- Tooth 15 lingual tipping

2008.03.13
Physical Examination

- Pain (+)
- Swallowing pain (-)
- Fever or local heat (-)
- Indurations (?)
- Tenderness (?)
- Lymphadenopathy (?)
X-ray finding: Panorex

Lesion 1

Lesion 2
Lesion 1 is located in the L’t mandibular ramus
- There is an **ill-defined** and **irregular radiolucency** without a corticated margin over the left mandibular body extending from 37 distal root mesial aspect to 34 root and extending from alveolar ridge down to mandibular canal measuring 4X2.5 cm
- No root resorption.
- Tooth floating in the air over tooth 34 35
- PDL destruction over 34 35
Lesion 2 is located over R’t maxilla tuberosity

There is an ill-defined and irregular radiolucency without a corticated margin over R’t maxilla tuberosity extending from tooth 18 distal buccal root to 15 root mesial aspect and extend from hard palate down to 16 furcation, measuring about 3X1.5 cm

No root resorption but 16 elongation

PDL destruction over tooth 16
Dental X-ray finding

- Missing tooth: 11 21 22 17 36 (R.R. 2007.02.21) 38 48
- Residual root: 46
- Caries: 18 27 28 47
- Periodontal condition: poor
- Endodontic condition: 37
- Restoration (e.g. C & B): 12XXX2324
- Filling: 16 25 26 resin filling, 37 amalgam filling
- Other dental finding: 47 distal root resorption
X-ray finding: Periapical film

- Tooth floating in air over tooth 16
- PDL destruction over tooth 16 31 32
- PDL widening over tooth 15
- There is an ill-defined and irregular radiolucency without a corticated margin over mandibular symphysis extending from tooth 31 root mesial aspect to 32 root distal aspect, and extending from 31 root apex down to mental spine, measuring about 1X1cm. Internal root resorption of 31 was noted.
Lesion 1:
34 floating in air
Bone remodeling

Lesion 2:
17 missing
X-ray summary

- RL with ill-defined margin over 34-37 area
- Bone remodeling ability over 34-37 can be seen
- Incisor lesion – PDL remained upon 2/3 root length
- 24 apex area bone density decreased
- 16-18 area bone density decreased

- -- Multiple area
- -- Ill-defined margin
- -- Tooth floating in the air – PDL disappear
- -- Bone remodeling character
Differential diagnosis

1. Disease origin: Bony or periodontal origin
2. Infection or neoplasm
3. Benign or malignant
Neoplasm or Infection?

- Fever or Local heat: (-)
- Pus discharge: (-)
- Duration: 14 months
- Lymphadenopathy: (?)
- Induration: (?)

→ Neoplasm
Benign or malignant?

- Margin: poor-defined
- Pain: (+)
- Ulceration: (+)
- Duration: 14 months

→ Malignant
Working diagnosis

1. Multiple myeloma
2. Langerhan cell disease
3. Metastatic carcinoma
# Multiple myeloma

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<thead>
<tr>
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<th>Our case</th>
<th>Multiple myeloma</th>
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<tbody>
<tr>
<td><strong>Gender</strong></td>
<td>Male</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>23</td>
<td>35-70 y/o (60 y/o average)</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>Continuous pain</td>
<td></td>
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<tr>
<td><strong>Symptom &amp; Sign</strong></td>
<td>Dull bone pain</td>
<td>Bone pain, Bone swelling</td>
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<tr>
<td></td>
<td>Tooth mobility</td>
<td>Pain paraesthesia</td>
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<tr>
<td></td>
<td></td>
<td>Tooth mobility</td>
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<tr>
<td><strong>Location</strong></td>
<td>L’t ramus, R’t tuberosity</td>
<td>Jaw bone (30%)</td>
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<tr>
<td><strong>Size</strong></td>
<td>4x2.5cm, 3x1.5cm</td>
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<tr>
<td><strong>Number</strong></td>
<td>3, Multiple</td>
<td>Multiple</td>
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<tr>
<td><strong>Margin</strong></td>
<td>Ill-defined</td>
<td>Well-defined</td>
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<tr>
<td><strong>Shape (X-ray)</strong></td>
<td>Radioluency</td>
<td>Punched out radiolucency</td>
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<tr>
<td><strong>Tooth involvement</strong></td>
<td>Floating in the air</td>
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Multiple myeloma

Our case
## Langerhan cell disease

<table>
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<tr>
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<th>Our case</th>
<th>Langerhan cell disease</th>
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<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Male prediction</td>
</tr>
<tr>
<td>Age</td>
<td>23</td>
<td>&lt; 10 y/o (50%), All aged</td>
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<tr>
<td>Frequency</td>
<td>Continuous pain</td>
<td></td>
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<tr>
<td>Symptom &amp; Sign</td>
<td>Dull bone pain, Tooth mobility</td>
<td>Dull pain, Tenderness</td>
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<tr>
<td>Location</td>
<td>L’t ramus, R’t tuberosity</td>
<td>Mandible posterior</td>
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<tr>
<td>Number</td>
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<td>Monostotic, polyostotic</td>
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<td></td>
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<td>Osteolytic bone lesion</td>
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<td>Ill-defined</td>
<td>No corticated rim, Ill-defined radioluency</td>
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<tr>
<td>Shape (X-ray)</td>
<td>Radioluency</td>
<td>punched out radioluency</td>
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<td>Scoope out</td>
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<td>Tooth involvement</td>
<td>Floating in the air</td>
<td>Floating in the air, Tooth mobility, loss</td>
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<td>Severe periodontitis</td>
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Langerhan cell disease

Our case
Metastastic tumor

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<td>Gender</td>
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<td>Male inclination</td>
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<td>Age</td>
<td>23</td>
<td>Middle age to older adult</td>
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<td>Frequency</td>
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<td>Symptom &amp; Sign</td>
<td>Dull bone pain</td>
<td>Mucosa ulceration</td>
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<td>Location</td>
<td>L’t ramus, R’t tuberosity</td>
<td>Gingival&gt;50% Tongue 25%</td>
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<td>Shape (X-ray)</td>
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<td>Ill-defined bony destruction</td>
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<tr>
<td>Tooth involvement</td>
<td>Floating in the air</td>
<td><strong>uncertain</strong></td>
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But p’t didn’t have medical history of origin primary tumor
Clinical impression

Langerhan cell disease
Other test and examination:

※染色體檢查報告:

Date : 2008/4/21

Specimen site: Buccal mucosa

Result : No chromosome abnormality was found
Biopsy:
Date: 2008/3/27
Site: bilateral maxillary & mandibular: A 34-36 area; B14-16 area
Pathologic diagnosis: A & B all showed Langerhan cell disease with feature of lymphoproliferative disorder

Date: 2008/4/24
Site: bilateral maxillary & mandibular: A 34, 35 area; B15,16 area
Pathologic diagnosis: A & B all showed Langerhan cell disease with feature of lymphoproliferative disorder
MRI examination(2008/4/9):
Tc -99m MDP whole body bone scan

Impression:
High probability of local bone invasion from oral cancer to facial bones and distant bone metastasis to spine
Chest X-ray examination (lung windows) 2008/4/21

Specific findings:
  Multiple lung cyst (multiple cyst)
  Compatible with Langerhans cell histiocytosis
Final diagnosis: Langerhan cell disease
References

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- Different diagnosis of oral and maxillofacial lesions fifth edition
- Essentials of ORAL PATHOLOGY AND ORAL MEDICINE ; R.A. CAWSON, E.W. ODELL, CHURCHILL LIVINGSTONE, Sixth edition
- Langerhan cell granulomatosis with unusual FNAC findings. SenGupta SK, Vince JD, Chakravorty P, Sinha SK. Department of Pathology, Faculty of Medicine, University of Papua New Guinea, Papua New Guinea.
- Histiocytoses in children: analysis of 120 cases and the bone marrow findings in infection-induced hemophagocytic syndrome vs malignant histiocytosis. Hathirat P, Chuansumrit A, Nitiyanant P, Kraipibool P, Ruangdaraganon N, Mahaphan W, Daengprasert S, Isarangkura P. Department of Pediatrics, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.
- Osteomyelitis caused by mycobacterium fortuitum. Ohry A, Brooks M, Steinbach T, Rozin R.
Thanks for your attention