CASE REPORT

報告者：Intern Group G
指導醫師：陳玉昆 主任
林立民 醫師
暨口腔病理科全體醫師
工作分配

• General data：吳彥、翁依岑
• DD：吳彥、翁依岑
• Discussion：許丹音、林良翰
• 醫學倫理：陳亦洛
• PPT製作：全體組員
• 報告：全體組員
• 統整：吳彥
GENERAL DATA

• Name: OOO
• Sex: Male
• Age: 59 y/o
• Native: 高雄市
• Marital stage: Married
• Attending staff: OOO
• First Visit: 2014/10/22

2015/01/24
CHIEF COMPLAINT

• Noted mass on soft palate, right side on 2014/10/22

• Routine check for oral cancer s/p operation

2015/01/24
PRESENT ILLNESS

• This 59 y/o male suffered from ulcer over right side of tongue for 2 months and came to ENT dept. on 2012/08/09. Biopsy had done and H-P report showed ulcer with dysplasia. The doctor suggested OP but p’t refused.

• On 2012/10/11, he came to OS OPD for treatment. Biopsy had done and H-P report showed SCC over right tongue. Arrange OP on 2012/11/13.

• Routine f/u and the mass over right soft palate was noted on 2014/10/22. The mass extended and we arrange OP for him on 2015/01/27.
PRESENT ILLNESS

2012/08/19 ENT OPD Dr. OOO

• C.C.: Ulcer over right tongue for 2 months
• biopsy
  → H-P: Oral cavity, right, biopsy, ulcer with dysplasia
• Suggested OP, but p’t refused
PRESENT ILLNESS

2012/10/11 OS OPD

• C.C.: Ulcer over right tongue

• Incision biopsy

→ H-P: **Oral cavity, tongue (lateral border), right, incision, squamous cell carcinoma, grade 1**

• Arrange OP on 2012/11/13

• Arrange CT

2012/10/11
ORAL CT (2012/10/31)

- Imaging findings:
  1) There are no enlarged lymph nodes (>1 cm) could be detected.
  2) Small soft tissue nodules (<1 cm) are also found in the submental, bilateral submandibular, parajugular spaces.

- Impression:
  1) No definite lesion in the tongue, or obscuring by artifact, or too small to be depicted on CT.
  2) Small visible lymph nodes (<1 cm) in the submental, bilateral submandibular, bilateral parajugular spaces.
PRESENT ILLNESS

2012/11/13  OP: WE+ SND
**H-P REPORT (2012/11/13)**

- **Pathologic diagnosis:**
  Oral cavity, tongue (lateral border), right, wide excision, squamous cell carcinoma, grade 1 (pT1 pN0 cM0, stage I)
  Lymph node, neck, right, SND, reactive hyperplasia (0 / 17)

- **Microscopic Examination:**
  - Microscopic invasion: limited to submucosa (tumor thickness: 0.2 cm).
  - Lymph-vascular invasion: not identified.
  - Perineural invasion: not identified.
  - Surgical margins: uninvolved (distance from closest margin: 0.5 cm, specify margin(s): sections A1-A4).
  - Submandibular gland: negative of malignancy.
  - Frozen section(s) FX1-FX2: negative of malignancy.
  - Frozen section(s): positive of malignancy.
PRESENT ILLNESS

2012/11/28~2014/09/10

• Routine f/u

• Arrange CT on 2013/05/10, 2013/11/11, 2014/04/23
ORAL CT(2013/05/10)

• Impression :

1) No definite lesion in the tongue, or too small to be depicted on CT. Residual/recurrent tumor could not be excluded.

2) Enlarged lymph nodes in the left supraclavicular fossa (1.0 cm), left level IB (1.7 cm), left IIA (1.1 cm) and right IIA (1.1 cm).

3) Status post right neck dissection.
• Impression:

1) Status post right partial glossectomy.
   No overt local tumor recurrence.

2) Status post right selective neck dissection.

3) Non-specific small lymph nodes (<1cm) in the left submandibular and the bilateral posterior cervical spaces.
ORAL CT(2014/04/23)

• Impression:

1) Status post right partial glossectomy.
   No overt local tumor recurrence.

2) Status post right selective neck dissection.

3) Non-specific small lymph nodes (<1cm) in the left submandibular and the bilateral posterior cervical spaces.
PRESENT ILLNESS

2014/10/22
• Mass on soft palate, right side 0.8 cm, verrucous form

2015/01/07
• Mass on soft palate, right side 2.5 cm, verrucous form
• Incision biopsy

→ H-P: Oral cavity, soft palate, right, incision, necrotic tissue with granulation tissue

The immunohistochemical stain study demonstrates: Vimentin (+), CK (-).
• Arrange OP on 2015/01/27
PRESENT ILLNESS
PAST HISTORY

• Past Medical History
  • Systemic disease: (-)
  • Hospitalization: (+) tongue cancer
  • Surgery under GA: (+) tongue cancer
  • Drug and food allergy: denied.

• Past Dental History
  • General routine dental treatment
  • Attitude to dental treatment: co-operative
PERSONAL HISTORY

• Risk factor related to malignancy
  • Alcohol: (+) quit 4 years
  • Betel nut: (+) quit 4 years
  • Cigarette: (+) quit 4 years

• Special oral habits: denied

• Irritation: denied
OMF EXAMINATION

• MMO: 26 mm
• Size: 2.5x2.5 cm
• Surface: rough
• Color: white, red
• Base: pedunculated
• Pain: (-)
• Tenderness: (-)
• Induration: (-)
• Consistency: firm
• LAP(-)

2015/01/24
IMAGE FINDING-PANOREX

2014/01/21
There is a homogeneous, well enhanced soft tissue lesion extending from at the right soft palate to pharynx.
The trachea is patent without foreign body.
The bony structure is intact.
Enlarged lymph node is noted in the right level IIA
Impression: Suspect recurrent or second primary tumor involving the right aspect of the soft palate, the retromolar region, the oropharynx.
Imaging findings:

- Part of the right tongue border was resected.
- Enhanced soft tissue lesion is noted involving the right aspect of the tongue, the retromolar region, the oropharynx and probably the upper gingiva.
- Borderline enlarged lymph node is noted in the right level IIa. (Se/Im: 3/30)
- The right submandibular gland and the adjacent soft tissue have been resected.
- Multiple small visible lymph nodes (<1 cm) are found in the left submandibular and the bilateral posterior cervical spaces.
Impression:

1) Status post right partial glossectomy.

2) Suspect recurrent or second primary tumor involving the right aspect of the soft palate, the retromolar region, the oropharynx; probably the upper gingiva and right tongue border. (Se/Im:400/17)

Suggest clinical correlation and further evaluation.

3) Status post right selective neck dissection.

4) Persistent borderline enlarged lymph node in the right level IIA. (Se/Im:3/30)

5) Non-specific small lymph nodes (<1cm) in the left submandibular and the bilateral posterior cervical spaces.
IMAGE FINDING – CHEST PA(2015/01/14)

1) No active lung lesions.
2) Atherosclerosis of aorta.
3) Spondylosis and scoliosis of spine.
• EKG Diagnosis:

Normal tracing
WORKING DIAGNOSIS

• Intrabony or peripheral?
• Inflammation, cyst, or neoplasm?
• Benign or malignant?
## INTRABONY OR PERIPHERAL

<table>
<thead>
<tr>
<th></th>
<th>Our case</th>
<th>Intrabony</th>
<th>Peripheral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mucosal lesion</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Bone expansion</td>
<td>-</td>
<td>+/-</td>
<td>-</td>
</tr>
<tr>
<td>Cortical bone destruction</td>
<td>-</td>
<td>+/-</td>
<td>-</td>
</tr>
<tr>
<td>Consistency</td>
<td>Firm</td>
<td>Hard</td>
<td>Soft, firm, rubbery</td>
</tr>
</tbody>
</table>

→Our case is a **peripheral** lesion
## INFLAMMATION OR NEOPLASM

<table>
<thead>
<tr>
<th></th>
<th>Our case</th>
<th>Inflammation</th>
<th>Neoplasm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regress or progress</td>
<td>Progress</td>
<td>Regress</td>
<td>Progress</td>
</tr>
<tr>
<td>Symptoms</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>Growth rate</td>
<td>Unknown</td>
<td>Hours, days, weeks</td>
<td>Weeks, months, years</td>
</tr>
<tr>
<td>Lymph node enlarge</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>Tenderness</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Fluctuation</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

→Our case is an **neoplasm**
Our case is a **malignant tumor**.
DIFFERENTIAL DIAGNOSIS
## SPINDLE CELL CARCINOMA

<table>
<thead>
<tr>
<th></th>
<th>Our case</th>
<th>Spindle cell carcinoma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>59 y/o</td>
<td>29 - 93 y/o(57)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td><strong>Site</strong></td>
<td>Right Soft Palate</td>
<td>Lower lip, tongue, Alveolar rigdge, pharyngeal</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>2.5x2.5cm</td>
<td>4-5 cm</td>
</tr>
<tr>
<td><strong>Surface</strong></td>
<td>Rough</td>
<td>Rough</td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td>Pedunculated</td>
<td>Pedunculated</td>
</tr>
<tr>
<td><strong>Symptom</strong></td>
<td>Painless</td>
<td>Pain</td>
</tr>
<tr>
<td><strong>consistency</strong></td>
<td>Firm</td>
<td>Firm</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Redish-white</td>
<td>Yellow-white to red</td>
</tr>
</tbody>
</table>
# LEIOMYOSARCOMA

<table>
<thead>
<tr>
<th></th>
<th>Our case</th>
<th>Leiomyosarcoma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>59 y/o</td>
<td>1 - 88 y/o (Middle age)</td>
</tr>
<tr>
<td>Gender</td>
<td>M</td>
<td>-</td>
</tr>
<tr>
<td>Site</td>
<td>Right Soft Palate</td>
<td>Larynx, Pharynx, tongue, mouth floor, Soft palate</td>
</tr>
<tr>
<td>Size</td>
<td>2.5x2.5cm</td>
<td>&lt; 2 cm</td>
</tr>
<tr>
<td>Surface</td>
<td>Rough</td>
<td>Rough</td>
</tr>
<tr>
<td>Shape</td>
<td>Pedunculated</td>
<td>Pedunculated</td>
</tr>
<tr>
<td>Symptom</td>
<td>Painless</td>
<td>Painless</td>
</tr>
<tr>
<td>consistency</td>
<td>Firm</td>
<td>Firm</td>
</tr>
<tr>
<td>Color</td>
<td>Redish-white</td>
<td>Yellowish-Red</td>
</tr>
</tbody>
</table>
### ADENOSQUAMOUS CARCINOMA

<table>
<thead>
<tr>
<th></th>
<th>Our case</th>
<th>Adenosquamous carcinoma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>59 y/o</td>
<td>usually older adults</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>M</td>
<td>Slightly M</td>
</tr>
<tr>
<td><strong>Site</strong></td>
<td>soft palate</td>
<td>tongue, oral floor, other mucosal surface</td>
</tr>
<tr>
<td><strong>Surface</strong></td>
<td>rough</td>
<td>with or without surface ulceration</td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td>pedunculated</td>
<td>nodule, broad-based</td>
</tr>
<tr>
<td><strong>Symptom</strong></td>
<td>Painless</td>
<td>Painless</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td>80% have metastatic deposits within the neck nodes</td>
</tr>
</tbody>
</table>

*P.425 in Oral and Maxillofacial Pathology, third edition*
### Basaloid squamous cell carcinoma

<table>
<thead>
<tr>
<th></th>
<th>Our case</th>
<th>Basaloid squamous cell carcinoma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>59 y/o</td>
<td>40~85 y/o</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td><strong>Site</strong></td>
<td>soft palate</td>
<td>larynx, pyriform sinus, tongue base, any region of aerodigestive tract</td>
</tr>
<tr>
<td><strong>Surface</strong></td>
<td>rough</td>
<td>ulcer</td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td>pedunculated</td>
<td>fungating mass</td>
</tr>
<tr>
<td><strong>Symptom</strong></td>
<td>Painless</td>
<td>Painful and interfere with swallowing (dysphagia)</td>
</tr>
</tbody>
</table>

80% have cervical metastases

abusers of alcohol and smoked tobacco

P.425, 426 in Oral and Maxillofacial Pathology, third edition
Clinical impression:
Spindle cell carcinoma
Treatment course(104/01/27)

- Routine patient identification check and time out
- GA with N.E.T.T intubation by anesthesiologist
- Put patient in supine position
- Routine aseptic and OMS draping procedures were done
- Prophylactic antibiotic: Cefazolin(1g) 1 vial/ q4h
- Throat pack in and OP started
- Excision of tutor over R’t soft palate to oropharynx performed with 0.5 ~ 1.0cm safety margin:
  - post. margin: near R’t tonsil pillar
  - ant. margin: soft palate
  - tumor base: R’t soft palate near uvula
  - lat. margin: pterygomandibular raphe
  - mad. margin: not cross midline and not involve uvula
Treatment course (104/01/27)

• send frozen section -> free of malignancy
• tie-over pressure on surgical site
• throat pack out and OP end
Treatment course (104/01/27)

Pre-OP

Post-OP
Histopathology report

臨床診斷：Benign neoplasm
腫瘤代碼：(M-8980/3)

Pathologic diagnosis:
Oral cavity, soft palate, right, excision, carcinosarcoma (pT3 N X, stage III)

Gross Examination:
● Specimen submitted:
  -- tissue sent for frozen section stated as "軟月疷-右側", measured 2.5 x 1.3 x 0.6 cm in size.
  -- excision of right soft palate lesion totally measuring 5.5 x 4.5 x 2.3 cm in size, in fresh state
● Tumor morphology: ulcerated lesion with an elevated indurated irregular margin.
● Tumor size: 5.0 x 4.0 x 1.8 cm in size.
● Tumor focality: single focus
● Adjacent structures involvement: no adjacent structure invasion
Representative sections are taken and labeled as follows: Jar 1.
FX1: residual specimen of frozen section, 軟月疷-右側, A1-A2: horizontal section, A3-4: vertical section
Microscopic Examination:
- Microscopic invasion: (tumor thickness: 1.8 cm).
- Lymph-vascular invasion: not identified.
- Perineural invasion: not identified.
- Surgical margins: cannot be assessed.
- Frozen section(s) FX1: severe epithelial dysplasia
- Immunohistochemical staining of CK is positive for the carcinoma component; CD34 (focal) and SMA are positive for the sarcoma component; negative stainings are noted for catenin, and ALK-1; Ki-67 staining reveals 30-50% positive labeling index.

The pathologic diagnosis has been concurred by peer slide review.
DIFFERENTIAL DIAGNOSIS OF LARYNGEAL SPINDLE CELL CARCINOMA AND INFLAMMATORY MYOFIBROBLASTIC TUMOR – REPORT OF TWO CASES WITH SIMILAR MORPHOLOGY

Hans-Ullrich Völker*1, Matthias Scheich2, Sylvia Höller1, Philipp Ströbel1, Rudolf Hagen2, Hans Konrad Müller-Hermelink1 and Matthias Eck1
Spindle cell tumors of the larynx are rare. In some cases, the dignity is difficult to determine. The most common type of malignant laryngeal tumors is the classical squamous cell carcinoma (SCC). Benign tumors of the larynx are divided in two groups: mesenchymal and epithelial lesions. Spindle cell lesions of the larynx are rare (1.3%). Such tumors usually require immunohistochemical investigations for detailed histopathological specification. Demonstrate a spindle cell carcinoma (SPC) and an inflammatory myofibroblastic tumor (IMT), two laryngeal spindle cell tumors with complete different dignity, and discuss the differential diagnosis focusing on the immunohistochemical results.
CASE PRESENTATION

• Case one
  PI: A 55 year-old male patient with relapsing dyspnoe and five pneumonias within the last four years was referred to our ENT hospital with progressive dyspnoe and dysphonia for five months.
  
  • Alcohol: (-) smoking: (+)
  
  • Clinical finding: a laryngeal mass without visible glottis.
  
  • Surgery and histopathology: tumor originated from the right vocal fold. Histologically, a spindle cell carcinoma (SPC) was diagnosed.
  
  • Lymphnode: unsuspicious in ultrasound and computertomographic investigation
  
  • F/U: free after 7 month
CASE PRESENTATION

• Case two
  PI: A 34 year-old female patient with increasing dysphonia for one month was referred to our ENT hospital.
  • Alcohol : (-) smoking : (-)
  • Clinical findings: a polyp (0.8 cm) of the right vocal fold
  • Surgery and result: Logopedic therapy led to a subjective voice improvement within the next three months, following resection of a round tumor with 1.2 cm diameter was macroscopically and histologically complete
  • F/U: Eight months after surgery
**HISTOPATHOLOGICAL AND IMMUNOHISTOCHEMICAL METHODS**

- Sections was cut at 2 μm and put on 3-aminopropyltriethoxysilane (APES) coated slides.
- Stained with hematoxylin-eosin (HE) and periodic acid Schiff (PAS) reaction were air-dried over night, dewaxed, rehydrated in descending concentrations of ethanol before being heated for antigen unmasking in 10 mM citric acid (pH 5.5) for five minutes.
- After rinsing with distilled water, slides were washed in phosphate buffered saline (PBS).
- For staining, the Histostain-Plus bulk kit (Zymed) was used according to the manufacturer’s protocol: 15 min blocking reagent, primary antibody incubation for one hour, rinsing with PBS (pH 7.4),
- Biotinylated secondary antibody incubation for 20 minutes,
- Rinsing with PBS, streptavidin peroxidase 20 minutes, and rinsing with PBS.
- Staining was performed by adding 3,3′-diaminobenzidine (DAB, Sigma) with subsequent counterstaining using hemalaun.
### Table 1: Immunohistochemistry

<table>
<thead>
<tr>
<th>Antibody</th>
<th>Expression in SPC</th>
<th>Expression in IMT</th>
<th>Source/Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First stainings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vimentin *</td>
<td>++</td>
<td>++</td>
<td>DAKO, mouse, 1:800</td>
</tr>
<tr>
<td>PanCytokeratin AE1/3 *</td>
<td>+</td>
<td>NR</td>
<td>DAKO, mouse, 1:100</td>
</tr>
<tr>
<td>EMA</td>
<td>+</td>
<td>NR</td>
<td>LOXO, mouse, 1:20</td>
</tr>
<tr>
<td>ALK-1 *</td>
<td>NR</td>
<td>+ (weak only)</td>
<td>DAKO, mouse, 1:20</td>
</tr>
<tr>
<td>smooth muscle Actin</td>
<td>++</td>
<td>NR</td>
<td>Beckman Coulter, mouse, 1:20</td>
</tr>
<tr>
<td>Desmin</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:400</td>
</tr>
<tr>
<td>S100</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, rabbit, 1:2000</td>
</tr>
<tr>
<td>CD34</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:100</td>
</tr>
<tr>
<td>CD117</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:100</td>
</tr>
<tr>
<td>Ki67 *</td>
<td>++ 60-80%</td>
<td>+ 5-10%</td>
<td>DAKO, mouse, 1:200</td>
</tr>
<tr>
<td>Additional stainings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PanCytokeratin KLI *</td>
<td>+</td>
<td>NR</td>
<td>Beckman Coulter, mouse, 1:40</td>
</tr>
<tr>
<td>PanCytokeratin MNF116</td>
<td>NR (but epithelium +)</td>
<td>NR</td>
<td>DAKO, mouse, 1:50</td>
</tr>
<tr>
<td>Cytokeratin 5/6</td>
<td>+ (weak only)</td>
<td>NR</td>
<td>DAKO, mouse, 1:50</td>
</tr>
<tr>
<td>Cytokeratin 7</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:120</td>
</tr>
<tr>
<td>CD68</td>
<td>NR</td>
<td>NR</td>
<td>Kiel, ascites, 1:20000</td>
</tr>
<tr>
<td>CD30</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:10</td>
</tr>
<tr>
<td>CD56</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:10</td>
</tr>
<tr>
<td>Her2Neu</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, rabbit, 1:100</td>
</tr>
<tr>
<td>Estrogen receptor</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:10</td>
</tr>
<tr>
<td>Progesteron receptor</td>
<td>NR</td>
<td>NR</td>
<td>DAKO, mouse, 1:120</td>
</tr>
<tr>
<td>p53</td>
<td>+</td>
<td>+</td>
<td>Neomarkers, mouse, 1:200</td>
</tr>
<tr>
<td>p63 *</td>
<td>++</td>
<td>NR</td>
<td>Dianova, rat, 1:20</td>
</tr>
<tr>
<td>p21</td>
<td>++</td>
<td>++</td>
<td>LOXO, mouse, 1:20</td>
</tr>
<tr>
<td>Cyclin D1</td>
<td>+</td>
<td>+</td>
<td>DAKO, mouse, 1:1400</td>
</tr>
<tr>
<td>Bcl-2</td>
<td>+ (weak cytoplasmatic)</td>
<td>++</td>
<td>Neomarkers, mouse 1:50</td>
</tr>
<tr>
<td>Rb</td>
<td>+</td>
<td>++</td>
<td>Tebu, rat, 1:200</td>
</tr>
<tr>
<td>HHV 8</td>
<td>NR</td>
<td>NR</td>
<td>Virofem, mouse conc.</td>
</tr>
<tr>
<td>HPV</td>
<td>NR</td>
<td>NR</td>
<td></td>
</tr>
</tbody>
</table>

*Used antibodies with expression pattern in spindle cell carcinoma (SPC) and inflammatory myofibroblastic tumor (IMT) as well as source and dilution. Staining started with antibodies in the upper part, followed by additional stainings, listed below. **strong positive reaction (++)**, **positive reaction (+)**, no reaction (NR), recommended for differential diagnosis (*)*. 
Immunohistochemical investigations led to diagnosis of two distinct tumors with different biological behaviour.

Both expressed **vimentin**.

- the SPC was positive for pan-cytokeratin AE1/3, CK5/6, and smooth-muscle actin
- the IMT reacted with antibodies against **ALK-1**, and **EMA**.
- The **proliferation (Ki67)** was up to 80% in SPC and 10% in IMT.
- Other stainings with antibodies against p53, p21, Cyclin D1, or Rb did not result in additional information.
RESULT

Case I- Spindle cell carcinoma.

• a: Spindle cell lesion with myxoid stroma (HE ×200).

• b: Mild to moderate atypia in tumor cells with rare mitoses (HE ×400). 1

• c: Vimentin immunoperoxidase – strong expression in tumor cells (×400). 1

• d: Pancytokeratin AE1/3 immunoperoxidase (×400).

• e: smooth muscle actin immunoperoxidase (×400).

• f: Proliferation (Ki67) up to 80% (immunoperoxidase ×200).
Case 2- Inflammatory myofibroblastic tumor.

- a: Spindle cell lesion with more regular pattern than in 1a, myxoid degeneration,
- vessels similar to granulation tissue, infiltration with inflammatory cells (HE ×200).
- b: Lack of atypia in tumor cells, resembling regular myofibroblasts (HE ×400).
- c: Diagnostic expression of ALK-1 immunoperoxidase (×400).
- d: Low proliferation (Ki67), less 10% (immunoperoxidase ×400).
- e: Relapse tumor, sharply confined surfaced with intact epithelium (HE ×40).
- f: Higher cellularity, no myxoid changes, less inflammatory cells, but mild atypia in the relapse(HE ×400).
CONCLUSION

• Spindle cell carcinoma (SPC)
• Inflammatory myofibroblastic tumor (IMT)
SPINDLE CELL CARCINOMA (SPC)

- biphasic tumors
  - squamous cell carcinoma (SCC)
  - malignant spindle cell component
- Sarcomatoid carcinoma, carcinosarcoma, collision tumor, or pseudosarcoma
SPINDLE CELL CARCINOMA (SPC)

- Male: Female = 10:1
- 60~70 y/o
- Vocal fold is the most common site
- Risk factors: Like SCC (ABC abuse)
- After radiation??
SPINDLE CELL CARCINOMA (SPC)

- Prognosis
  - 25% : Metastasizes regional lymph nodes
  - 5–15%: distant metastases
  - Five year survival is reported to be 65–95%
  - Better Prognosis : absence of irradiation and low tumor stage
  - Improved survival: low level of cytokeratin expression
SPINDLE CELL CARCINOMA (SPC)

- Differential diagnosis
  - laryngeal sarcomas
  - reactive or benign spindle cell proliferations
  - nodular fasciitis, IMT, or low grade myofibroblastic sarcoma
INFLAMMATORY MYOFIBROBLASTIC TUMOR (IMT)

- Composed of myofibroblastic cells and intermingled inflammatory cells, especially plasma cells
- Inflammatory pseudotumor, plasma cell granuloma, plasma cell pseudotumor, or pseudosarcomatous
INFLAMMATORY MYOFIBROBLASTIC TUMOR (IMT)

- The most common location is the lung, followed by soft tissue and viscera
- children or young adults
INFLAMMATORY MYOFIBROBLASTIC TUMOR (IMT)

- IMT of the head and neck, especially of the larynx, are rare
- Median age of 57 years
- Male : female = 1.8:1
- Prognosis is excellent: Metastases are possible, but were not described for IMTs of head and neck
- Recurrence rate: 21%
- Radical surgery is reserved for more aggressive cases
- Corticosteroid and nonsteroidal anti-inflammatory treatment
INFLAMMATORY MYOFIBROBLASTIC TUMOR (IMT)

- Etiology: unknown
  - Gene rearrangement and gene activation are restricted to the myofibroblastic component
  - Trauma (intubation)
- Symptoms:
  - Mimic a neoplastic process: hoarseness, dysphonia, or foreign body sensations in the throat.
  - Systemic signs (fever, weight loss, anaemia) are usually missing in extrapulmonary IMTs
INFLAMMATORY MYOFIBROBLASTIC TUMOR (IMT)

• Diagnosis: difficult
• Coffin et al. have described three morphologic patterns:
  1. spindle cells in a myxoid background with a vascular and inflammatory component (nodular fasciitis like)
  2. compact spindle cells in a solid confluent area or as irregular foci in areas of dense collagen (fibrous histiocyctoma like)
  3. collagen dense pattern similar to desmoid fibromatosis
• In our case: variant one with relapse as variant two
INFLAMMATORY MYOFIBROBLASTIC TUMOR (IMT)

• Differential diagnosis: Morphology and immunohistochemical profile

-low grade myofibroblastic sarcomas as well as a long list of benign, reactive, or neoplastic spindle cell lesions, such as leiomyoma, solitary fibrous tumor, spindle cell carcinoma, nodular fasciitis, and peripheral nerve sheet tumor
D.D WITH SPC AND IMT

- SPCs contain pleomorphic malignant spindle cells with mitoses (including atypical mitoses)
- Most of SPC are associated with epithelial dysplasia or common SCC
- Our case of SPC showed similarities with IMT in some areas, so we were not able to diagnose a SPC with HE staining alone
D.D WITH SPC AND IMT

- immunohistochemistry was evident for SPC/IMT

<table>
<thead>
<tr>
<th></th>
<th>SPC</th>
<th>IMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>cytokeratin</td>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>vimentin</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>ALK-1</td>
<td>(-)</td>
<td>(+)</td>
</tr>
</tbody>
</table>
SUMMARY

- the differential diagnosis of SPC and IMT can be difficult, particularly in cases with uncommon immunohistochemical profile

- Therefore, a comprehensive morphological and immunohistochemical analysis is necessary
醫學倫理討論
生命的神聖性(Sanctity of life):

1. 行善原則(Beneficence): 醫師要盡其所能延長病人之生命且減輕病人之痛苦。

2. 誠信原則(Veracity): 醫師對其病人有「以誠信相對待」的義務。

3. 自主原則(Autonomy): 病患對其己身之診療決定的自主權必須得到醫師的尊重。

4. 不傷害原則(Nonmaleficence): 醫師要盡其所能避免病人承受不必要的身心傷害。

5. 保密原則(Confidentiality): 醫師對病人的病情負有保密的責任。

6. 公義原則(Justice): 醫師在面對有限的醫療資源時，應以社會公平、正義的考量來協助合理分配此醫療資源給真正最需要它的人。
行善原則

做了Excision後是否有減輕病人的疼痛感及不安感？或是使病人更不舒服？

→有完整去除病灶區域並拍照記錄術後情形。

並告知術後傷口會疼痛，但持續癒合後疼痛會逐漸緩解。

並針對病人的不安，加以說明跟安撫。
誠信原則

• 對於患者的疾病嚴重程度是否有確實地通知，盡到告知的義務？
• 是否有清楚的向病人說明清楚疾病病程、治療計畫、預後、風險？
  →皆以已告知病人後，經同意才進行手術。
自主原則

• 充分說明病情及治療計畫、風險之後，是否有讓病人充分自主地選擇治療計畫？

→ 病人及家屬選擇並同意醫師的建議。

• 在做全身麻醉以前，是否有說明完整之後再請病人自主的簽名同意？

→ 已充分說明並與家屬溝通。
不傷害原則

• 是否有先完整瞭解病人的病史？
  →治療前有完整蒐集病史資料，並與病患溝通後擬定進一步的治療計畫

• 手術過程中，是否有造成不必要的醫源性的傷害？
  →沒有不必要醫源性傷害。
保密原則

告知的對象

1. 本人為原則

2. 病人未明示反對時，亦得告知其配偶與親屬

3. 病人為未成年人時，亦須告知其法定代理人

4. 若病人意識不清或無決定能力, 應須告知其法定代理人、配偶、親屬或關係人

5. 病人得以書面敘明僅向特定之人告知或對特定對象不予告知
公義原則

• 手術的必要性？

→SCC以該case而言最佳的治療方式是sugical excision，將病灶完整的切除才能將復發率(recurrence rate)降到最低。
醫學倫理總結

• 在病例撰寫方面(病兆描述,治療計畫,病人態度)應書寫詳盡，使治療過程有詳實的記錄及治療順利。

• 在進行治療之前,須請病人簽屬同意書

• 應在不違反醫學倫理的原則之下進行治療的行為
REFERENCES

• Oral and Maxillofacial Pathology Neville 3rd Edition.
• Shafers Textbook of Oral Pathology 7th edition