

中文題目：以單一股四頭肌肌肉轉移之復發性下咽癌患者

英文題目：Recurrent local advanced hypopharyngeal SCC with solitary quadriceps femoralis metastasis : an unusual case and literal review

作者：吳韋聰<sup>1</sup> 黃虹綾<sup>1</sup>，許瑞峰<sup>1</sup>，卓士峰<sup>2</sup>，吳俊杰<sup>2</sup>，劉大智<sup>2,3</sup>，林勝豐<sup>2,3</sup>

服務單位：高雄醫學大學附設中和紀念醫院<sup>1</sup>內科部血液腫瘤內科，<sup>2</sup>高雄醫學大學醫學院醫學系內科

### Case present

A 43 year-old male had the previous history of hypopharyngeal squamous cell carcinoma(SCC) (T1N1M0,satge III) in 2010, Feb.

He had ever received wide excision and concurrent chemoradiation therapy after diagnosis. No evidence of recurrence was found for 16 months follow up. He suffered from left knee pain whether walking or at rest since 2011, June .The clinical symptom was not relieved under medication therapy. After 4 months later, one palpable, fixed, aggregately painful mass over medial site of the left distal thigh was presented, and then he visited to our Orthostatic clinic .

At the clinic, physical examination revealed swelling left knee, and one non-movable, firm, tenderness mass with the size about 6x5 cm over the distal, medial part of left quadriceps femoris. There's no other abnormalities ,such as mass, nodule was found over the body .

A left femur X-ray revealed soft tissue calcification at medial aspect of the distal thigh medial to the femur without remarkable bony destruction.(Fig.1)

The magnetic resonance tomography (MRI) scan of low limb revealed an infiltrative fusiform soft tissue tumor(5.2 x 4.9cm) with central necrosis adjacent the medial aspect of the distal femur. (Fig.2)

Complete surgical excision of the mass was performed , and the pathological study revealed the soft tissue is infiltrated by neoplastic cells exhibiting hyperchromatic,pleomorphic nuclei and distinct nucleoli, Keratin pearls were also found. (Fig.3) It was compatible with the morphology of the previous hypopharyngeal SCC.

No secondary metastatic lesions were found via whole body imaging of 18F-fluoro-deoxy-glucose (FDG) positron emission tomography and computed tomography scan (PET-CT) after operation (Fig.4) .

After the sugary, he received the radiotherapy (total 3000cGY/10fx) over left thigh area first and subsequently underwent 4 courses of systemic chemotherapy with Cisplatin (60mg/m2/day,1 day) and Fluorouracil (5-FU) ((1000mg/m2/day,4 days).

Now, his general condition was stable, and no obvious soft tissue metastatic lesion via MRI follow up after 8 months follow up.

### Discussion

Skeletal muscle tumors are commonly as primary lesions rather than secondary lesions.<sup>3</sup> Metastasis to the skeletal muscle is even rare ,it accounts for less than 1% of haematogenous metastatic from solid tumor to skeletal muscle<sup>4</sup> .

Distant metastases in head and neck squamous cell carcinoma (HNSCC) is unusual in comparison to other malignancies, and distant muscular metastasis from HNSCC is an even extremely rare occurrence. Including our case, only 10 cases had been published.

Most of the HNSCC are local metastases. Cervical lymph node invasion is thought as an important risk factor of distant metastases, also accounts for the poor prognosis<sup>13</sup>. The most common metastases site including lung, bone and liver,<sup>1</sup> muscular metastasis is a very rare

entity. To our best knowledge, there are only 2 cases<sup>6, 10</sup> were reported of recurrent HNSCC revealed haematogenous distant muscular metastases without cervical lymph node invasion.

In current literate review, most of the HNSCC distant metastasis are multiple sites involvement, solitary muscular invasion was extremely rare. Herein, we present the first case of recurrent hypopharyngeal SCC with initial cervical lymph node involvement, but only distant skeletal muscle metastasis to the left quadriceps femoris muscle was found.

It is difficult to diagnosis of skeletal muscle metastasis. The most common clinical symptoms of skeletal muscle metastasis in HNSCC patient is a painful, palpable mass or deformity, but the symptoms may be veiled or absent in some cases.<sup>6, 8, 10-12</sup> Biopsy is the gold standard of diagnosis, but the image diagnostic tools, including MRI, PET-CT are essential for define the site and extension of tumor involve, it is quite important of different treatment and prognosis.

Because of the rarity of muscular metastasis from HNSCC, there's no specific guideline for the therapeutic options. The treatment options depend on clinical setting and staging, included observation, surgical excision, radiotherapy, chemotherapy or combined therapy. The prognosis varied, it depends on individual primary site, initial staging, general condition and comorbidity. The 5-year survival rate of hypopharyngeal cancer is approximately 35%<sup>13</sup>, however, the prognosis associated with skeletal muscle metastasis in HNSCC is thought to be poorer than the average, it may consistent with a feature of systemic spread<sup>6</sup>. We can find isolated, long term disease-free interval may have relatively better prognosis in this group<sup>8-9, 11-12</sup>

We presented a rare case of solitary quadriceps femoralis muscle metastases in a recurrent locally advanced stage hypopharyngeal cancer. He received surgical treatment, radiotherapy for pain relieve and also received 4 courses of adjuvant chemotherapy with the regiments of Cisplatin and Fluorouracil, no local recurrent nor other visceral organ involvement after 8 months follow up. It indicates the adjuvant chemotherapy may prolong the disease free period.

#### 參考資料：

1. Ferlito A, Shaha AR, Silver CE, Rinaldo A, Mondin V. Incidence and sites of distant metastases from head and neck cancer. *ORL J Otorhinolaryngol Relat Spec.* Jul-Aug 2001;63(4):202-207.
2. Genden EM, Ferlito A, Bradley PJ, Rinaldo A, Scully C. Neck disease and distant metastases. *Oral oncology.* 2003;39(3):207-212.
3. A S, Y O, Y S, S F, S S, Inventors. - Intramuscular metastasis of carcinoma.
4. Kozyreva ON, Mezentsev DA, King DR, Gomez-Fernandez CR, Ardalan B, Livingstone AS. Asymptomatic muscle metastases from esophageal adenocarcinoma. *J. Clin. Oncol.* 2007;25(24):3780-3783.
5. Mathis S, Fromont-Hankard G, du Boisguéheneuc F, et al. Les métastases des muscles striés. *Rev. Neurol. (Paris).* 2010;166(3):295-304.
6. Marioni G, Blandamura S, Calgaro N, et al. Distant muscular (gluteus maximus muscle) metastasis from laryngeal squamous cell carcinoma. *Acta Otolaryngol. (Stockh).* 2005;125(6):678-682.
7. Carter R. The Spread of Tumours in the Human Body. *J. Clin. Pathol.* 1974;27(5):432-433.
8. Damron TA, Heiner J. Distant soft tissue metastases: a series of 30 new patients and

- 91 cases from the literature. *Annals of surgical oncology*. 2000;7(7):526-534.
9. Ralf S, Maurice G, Max H, Dieter R, Oliver M. Distant metastases of a squamous cell carcinoma of the tongue in peripheral skeletal muscles and adjacent soft tissues. *Head & Face Medicine*. 2008;4.
  10. Kulahci Y, Zor F, Onguru O, Bozkurt M, Duman H. Distant muscular (rectus femoris) metastasis from laryngeal squamous cell carcinoma. *The Journal of Laryngology & Otology*. 2009;123(12):1381-1383.
  11. Sudo A, Ogihara Y, Shiokawa Y, Fujinami S, Sekiguchi S. Intramuscular metastasis of carcinoma. *Clin Orthop Relat Res*. Nov 1993(296):213-217.
  12. Yucel EA, Demirel T, Demiryont M, Egeli U, Deger K. An unusual metastatic site of laryngeal carcinoma: scapular muscles. *J Laryngol Otol*. Jan 2003;117(1):85-87.
  13. Mamelle G, Pampurik J, Luboinski B, Lancar R, Lusinchi A, Bosq J. Lymph node prognostic factors in head and neck squamous cell carcinomas\*. *The American journal of surgery*. 1994;168(5):494-498.
  14. Emmering J, Vogel WV, Stokkel MP. Intramuscular metastases on FDG PET-CT: a review of the literature. *Nucl Med Commun*. Feb 2012;33(2):117-120.