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Huge lipoma in the left submandibular region

**KEYWORD**

Submandibular lipoma;
Benign tumor;
Magnetic resonance
imaging

Lipoma is the most common benign mesenchymal tumor of the human body. It is characterized by a well-delineated, painless, slow-growing, and mobile mass. Lipomas are typically located in the extremities and trunk, and only approximately 13% of them are found in the head and neck region, mostly in the posterior neck area. Lipomas are commonly observed in the 5th to 6th decades of life and rarely occur in children. A diagnosis of lipoma can be facilitated by preoperative imaging, including ultrasound, high resolution computed tomography (HRCT), and magnetic resonance imaging (MRI). Most patients with lipoma can be regularly followed up without any treatment, except in cases of diagnostic uncertainty, such as lack of homogeneity on the radiograph, pain, and cosmetic concerns.^{1,2}

Here, we reported a huge lipoma in the left submandibular region of a 56-year-old woman (Fig. 1A, B). She visited the Oral and Maxillofacial Division of our hospital in 2017 with cosmetic and diagnostic concerns. No specific abnormalities were found in her upper and lower jaws and dentition on physical and radiographic examination (Fig. 1C). She had no systemic diseases except the mild hypertension which was under control with medication. She had no history of alcohol and betel nut consumption and cigarette smoking. For a detailed work-up, ultrasound and MRI examination of

the patient were performed. MRI showed the presence of a signal region circumscribed by a black rim suggestive of lipoma (Fig. 1D). Sonographic imaging revealed echogenic strike paralleling the skin accompanied by hypoechoic features compared to the adjacent muscle, which was also suggestive of a typical lipoma (Fig. 1E). After comprehensive discussion with the patient, she opted for excision of the tumor under general anesthesia. The patient then underwent excision of the tumor in the left submandibular region. The tumor mass was $7 \times 3 \times 3$ cm. In such surgical procedures, the marginal mandibular branch of the facial nerve was at risk of injury. However, it was successfully treated without causing any damage. No additional reconstruction was needed, and primary closure was performed via subcuticular suturing with 6-0 nylon (Fig. 1F–H). Histopathological examination revealed abundant mature adipose cells with fat droplets in the cytoplasm (Fig. 1I). Thus, the final diagnosis was a lipoma.

The typical lipoma can be diagnosed by histological examination without the need of immunohistochemistry to identify the tumor cell origin.^{3–5} The mechanism of formation and growth of lipoma is still not well understood. Complete examination and careful diagnosis lead to the correct management of this tumor. Anatomical pitfalls should be avoided while performing the operation. We hope that this case report

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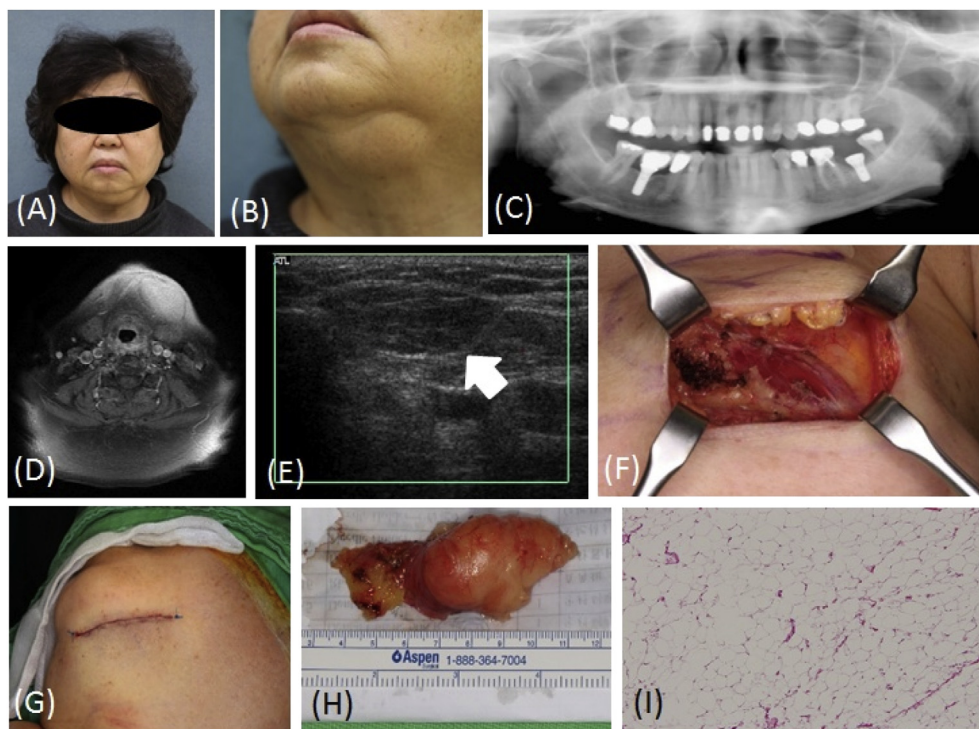


Figure 1 The clinical, radiographic, and histological photographs of our lipoma case. (A and B) A painless swelling over the left submandibular region for about 1 year. Normal facial muscle function indicates non-involvement of the facial nerves. (C) No abnormalities were observed in the dentition. (D) Presurgical survey with contrast MRI revealed a soft tissue swelling over the left submandibular region in a sagittal and horizontal T2-weighted image. (E) An ultrasound image showing a swelling with hypoechoic features (White arrow). (F, G, and H) The surgical field was well defined and identified. After excision of the soft tissue tumor, primary closure with subcutaneous sutures was performed for the esthetic purpose. (I) Hematoxyline and eosin-stained histological section showing abundant mature adipose cells with fat droplets in the cytoplasm.

will help clinicians to perform a more comprehensive diagnosis and manage this lesion with prudence.

Conflicts of interest

The authors have no conflict of interest that are relevant to this article.

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Yu-Hsuan Li
Division of Oral and Maxillofacial Surgery, Tri-Service
General Hospital, Taipei, Taiwan, ROC

Graduated Institute of Dental Science, National Defense
Medical Center, Taipei, Taiwan, ROC
School of Dentistry, National Defense Medical Center,
Taipei, Taiwan, ROC

Wen-Chuan Tsai
Department of Pathology, Tri-Service General Hospital,
Taipei, Taiwan, ROC

Yuan-Wu Chen*
Division of Oral and Maxillofacial Surgery, Tri-Service
General Hospital, Taipei, Taiwan, ROC
Graduated Institute of Dental Science, National Defense
Medical Center, Taipei, Taiwan, ROC
School of Dentistry, National Defense Medical Center,
Taipei, Taiwan, ROC

*Corresponding author. Division of Oral and Maxillofacial
Surgery, Tri-Service General Hospital, No. 325, Cheng-Kung
Rd., Sec. 2, Neihu 114, Taipei, Taiwan, ROC. Fax: +886 2
87927147.

E-mail address: h6183@yahoo.com.tw

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