

## Central Hemangioma of the Mandibular Condyle – A Case Report

I-Yueh Huang<sup>1,\*</sup>, Jing-Yi Chen<sup>2</sup>

Departments of <sup>1</sup>Oral & Maxillofacial Surgery and <sup>2</sup>Oral Pathology, School of Dentistry,  
College of Dental Medicine, Kaohsiung Medical University, Kaohsiung Medical University  
Chung-Ho Memorial Hospital, Kaohsiung, Taiwan



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\* Corresponding author. Address: Department of Oral & Maxillofacial Surgery, Department of Dentistry, College of Dental Medicine, Kaohsiung Medical University, 100, Shih-Chuan 1st Road, Kaohsiung, Taiwan.

Tel.: +886 7 3121107~7005; fax: +886 7 3210637. E-mail: iyuhu@cc.kmu.edu.tw (I.-Y. Huang)

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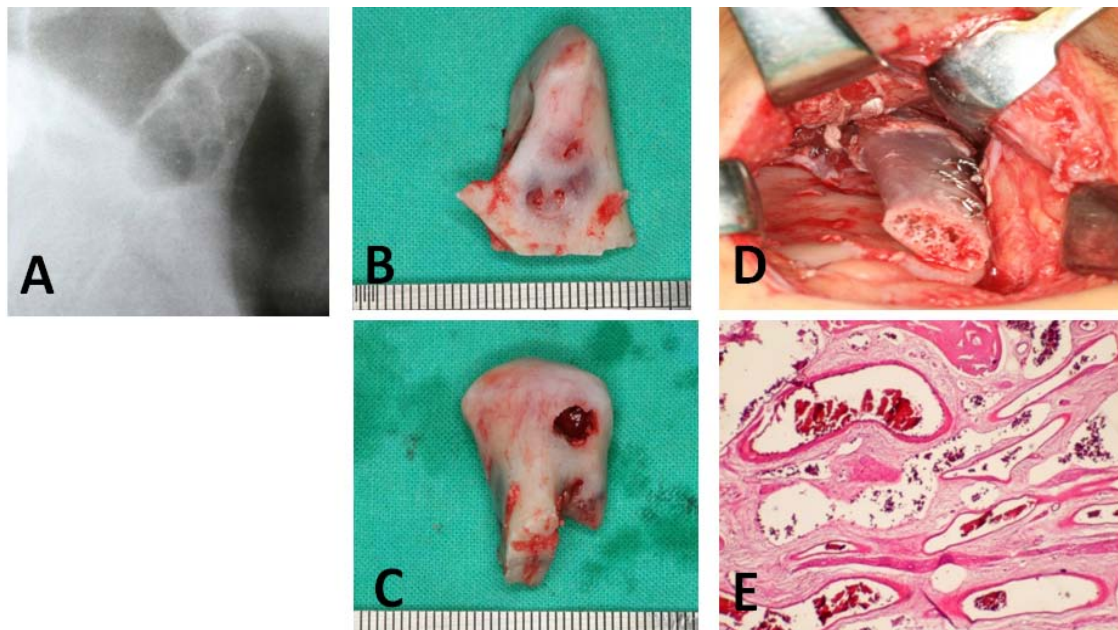
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Central hemangioma of the jaw is very rare and is mostly found in the body of the mandible. Patients with central hemangioma of the jaw bone are usually asymptomatic; however, various symptoms such as pain, swelling, discomfort, pulsation, tooth mobility and slow oozing from the gingiva, especially in high-flow vascular lesions, may be present [1]. Imaging of the central hemangioma usually presents as a multilocular radiolucent shadow with a honeycomb or soap-bubble appearance [2]; the margin is usually irregular and poorly-demarcated, which makes diagnosis and evaluation of size difficult. Furthermore, when hemangioma is suspected, angiography should be considered to detect the vascular flow of the lesion. Treatment of central hemangioma consists of surgical excision combined with reconstruction of the defect if necessary.

The mandibular condyle is a region in which tumor/tumor-like lesions rarely form, osteoma, osteochondroma, chondroma and synovial chondromatosis being the most common pathological entities [3]. Central hemangioma is a rare entity in the mandibular condyle. Four cases were reported in the literature prior to 1991 [4-7], and only 3 cases of hemangioma affecting the mandibular condyle have been documented in the literature subsequently [8-10]. Due to the relative paucity of cases of central hemangioma occurring in the mandibular condyle, reports of the clinical features and therapeutic modalities are still inconsistent. Thus, the aim of this report is to present an additional case of central hemangioma in the mandibular condyle to provide valuable information regarding this uncommon lesion.

### CASE PRESENTATION

A Taiwanese female visited the dental department of our institution with the chief complaint of facial asymmetry. No painful sensations and other symptoms



**Figure 1** (A) Cropped panoramic radiograph showed a multilocular radiolucency at the left condyle. (B) Lateral view of surgical specimen of the left condyle showing the thinned outer cortical bone of the ramus; (C) Posterior view of surgical specimen showing the lesion with cortical bone perforation at the postero-medial surface of the condylar head. (D) The costochondral graft was placed in the glenoid fossa and fixed to the ramus with transosseous wires. (E) Histological examination of the specimen revealing bony trabeculae entrapped by multiple blood vessels (Hematoxylin-eosin stain  $\times 100$ ).

were noted. A multilocular radiolucent lesion in the left mandibular condylar area has been accidentally noted on panoramic radiograph examination (Fig. 1A).

The patient denied any history of trauma as well as any pulsation, paresthesia, or pain. A normal appearance of the skin and oral mucosa was noted. No clicking sound could be noticed. A clinical impression of a cystic lesion, or a benign tumor was suspected. The patient was then undergone condylectomy and rib costochondral grafting under general anesthesia (Fig. 1B-D). Intermaxillary fixation was fixed for 1.5 months, and mouth-opening exercises were subsequently initiated.

Histological examination of the surgical specimen revealed bony trabeculae separated by many thin-walled, dilated blood vessels (Fig. 1E). Hence, a histologic diagnosis of central cavernous hemangioma of the

left mandibular condyle was made.

#### COMMENTS

Reviewing the pertinent literature, there have only been only seven cases of central hemangioma reported in the mandibular condyle. Of the eight cases in total, the gender of the patient has been revealed in seven: four were female and three were male, a slight female predominance that differs from the male predominance for central hemangioma of other regions of the jaw [8]. Pain is the symptom most frequently documented (six cases) and swelling was noted in two cases but two cases including the present case were asymptomatic. Two cases also involved the ramus, while three cases were confined to the condylar head and condylar neck. Histopathologically, five cases were diagnosed as hemangioma; the other three cases were diagnosed as vascular malformation.

Treatment for mandibular condylar hemangioma varies dependent on the size, location and vascular flow of the lesion. In most reports, condylectomy has been reported using different reconstruction methods, including no grafting (three cases), sliding vertical ramal osteotomy (one case), and reconstruction with a temporomandibular joint prosthesis (three cases). The present report is, to our knowledge, the first case of mandibular condylar hemangioma treated by surgical excision and reconstruction by rib costochondral grafting.

From literature, magnetic resonance imaging was performed first to diagnose the soft tissue hemangioma and to delineate the extent of the lesion as well as its relationship with surrounding structures [2]. In addition, when a vascular lesion is identified, angiography should be done prior to surgical treatment to assess whether the flow of the lesion is high or low, particularly for a lesion with ill-defined borders. If such an assessment is unavailable, the patient should be regularly followed-up by X-ray radiography as shown in our case in order to have early alert of the lesion to thwart uncontrolled bleeding as well as to evade an enlarging inoperable lesion [1, 3].

### CONCLUSION

Here, we report a case of mandibular condylar hemangioma highlighting that this lesion should also be considered in the differential diagnosis of condylar lesions. □

### THE AUTHORS



*Dr. I-Yueh Huang is associate professor in Department of Oral & Maxillofacial Surgery, Kaohsiung Medical University, Kaohsiung, Taiwan*

*Dr. Jing-Yi Chen is visiting staff in Department of Oral Pathology, Kaohsiung Medical University, Kaohsiung, Taiwan*

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