原文題目(出處):	Central hemangioma—A case report and review of literature
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### 1. Introduction

- Vascular lesions of the maxillofacial region are classified as either: (i) hemangiomas or (ii) vascular malformations.
- Hemangiomas are the most common cutaneous tumor of infancy and demonstrate rapid growth followed by a slow spontaneous involution or regression within five to seven years. Vascular malformations enlarge proportionately with the growth of the child and do not undergo spontaneous involution
- Vascular malformations can be subdivided based on blood flow rate: slow flow" (capillary, venous, lymphatic or mixed) versus "fast flow" (arteriole, arteriovenous, fistulae or shunt) subtypes.
- It mainly occurs in the vertebral column. Mandible is a very infrequent location although possible.
- The female:male ratio is 2:1 and the peak of incidence is between the second and fifth decades of life [2,3].

## 2. Case history

- An 18-year-old female patient reported with a complaint of swelling in the lower right side of the jaw since one and half years
- Swelling was slowly increasing in size, which was of cosmetic concern to the young female
- Clinical examination revealed approximately 2 cm×1.5 cm, diffused swelling on the right lower side of the face.
- Skin over the swelling was normal and no neurological deficit was noted.
- Intra oral examination showed vestibular swelling at number 44, 45 and 46 teeth region, which was hard on palpation. Swelling was hard on palpation and no <u>pulsations</u> or <u>bruits</u> were noted.
- Slight mobility of number 45 tooth was noted, otherwise all other teeth were clinically normal.
- Diagnostic panoramic radiograph revealed ill defined radiolucent area at the periapical region of premolar teeth

# 3. Diagnostic angiography

• There was evidence of bony perforation both buccal and lingual side suggesting feeder vessels.



• Three dimensional reconstructed (3D) images of angiography showed unusually small facial artery with the branches entering the mandible (Fig. 2b). These branches were identified as supplying the lesion.

#### 4. Treatment

- Crevicular incision was made on the right side of the mandible. Mucoperiosteal flap was raised on both buccal and lingual side, ligating and cauterising the feeder vessels.
- A bony window was made on the buccal cortex at the periapical area of lower right third molar region to reach the mandibular canal.
- Mental neurovascular bundle seen emerging from the lesion was clamped and ligated.
- Deroofing of the lesion was done from the buccal aspect.
- Second premolar was extracted as it was left with no bone support.

#### 5. Histopathology

• Confirmed by histopathological study with evidence of proliferating endothelial cells forming small to large blood vessels

#### 6. Discussion

- The literature suggests that the lesion may present at any age, but was most commonly discovered in the second decade of life.
- The most frequent location of hemangioma is the molar premolar region



- There was ill defined radiolucency in the premolar region.
- It is important to emphasise that some radiographic patterns, such as the spoke-like and sunray

appearance, frequently described in other studies and textbooks, are actually extremely rare

- Therapeutic alternatives include: surgery, curettage and embolization
- Histologically, hemangioma can be divided into three groups: cavernous, is the most frequent one and is located in the mandible, capillary and mixed.
- In the proliferative phase, the lesion is highly cellular and contains <u>plump</u> proliferating endothelial cells and <u>pericytes</u>, with a high mitotic activity and numerous mast cells. Vascular channels are not prominent.
- In the involutive phase, the endothelial cells are flattened, the cell turnover is normal and there are few mast cells. Vascular channels filled with blood cells predominate, and the lesion is eventually replaced by fibrofatty tissue.
- Complete cure by arterial embolization is difficult.
- The direct transosseous puncture of the vascular bed has been proposed. This procedure controls the acute hemorrhagic phase, but does not eliminate the risk of a recurrence.
- The newer technique, transmandibular curettage via proximal osteotomy without complete resection, however, is a less invasive but effective method to treat small intraosseous vascular lesions of the mandible that have not invaded the soft tissues. Less blood loss, preservation of the bone and periosteum, more favorable postoperative esthetics and better function are among the advantages of this technique when indicated. Azzolini et al. [30] presented an exclusively intraoral treatment by extracting the teeth and then cleaning the underlying cavity through the alveolar process and packing the mandible with oxidized cellulose after superselective intra-arterial embolization (SIAE). The technique reported consists of SIAE and piecemeal removal of the lesion through burred holes made in the cortex. Bone wax packing (BWP) of bone cavities was used to control hemorrhage of the lesions in emergency and carried out curettage 2 months later. This technique is reported as simple and safe. Bone tissue, dental embryo, erupted tooth, and lower alveolar nerve may be preserved in most cases. It reduces morbidity by maintaining the continuity of the mandible
- Number 45 tooth was extracted. So, we employed the newer technique, transmandibular curettage via proximal osteotomy without complete resection.
- Preservation of continuity of jaw bone, more favorable postoperative esthetics and better function.

題號	題目	
1	Hemangioma is most related to the following disease:	
	(A) Sturge-Weber-Dimitri syndrome and Rendu-Osler-Weber	
	syndrome	
	(B) Cushing syndrome & Down syndrome	
	(C) Behcet's Syndrome & Marfan syndrome	
	(D) Morgellons syndrome & Impingement Syndrome	
答案	出處:http://emedicine.medscape.com/article/1080571-overview	
(A )	Updated: Jun 10, 2010	
題號	題目	
2	Which is the new name of Strawberry hemangioma?	
	(A) Capillary hemangioma	
	(B) Cavernous hemangioma	
	(C) Mixed hemangioma	
	(D) Parotid hemangioma	
答案	出處:http://emedicine.medscape.com/article/1080571-overview	
(A)	Updated: Jun 10, 2010	