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Hemangioma Of Upper Lip- A Case Report With Review Of Literature

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ABSTRACT

Vascular lesions occurring in maxillofacial area pose a challenge as compared to those in other body regions, because of the presence of the sense organs like eye, brain, tongue, ear, nose and high aesthetics[1,2]. Treatment of vascular lesions is still a great challenge for surgeons particularly when carried out without an adequate hemodynamic study and preoperative endovascular treatment, because of the surgical risks related to the conspicuous bleeding during surgery.

Keywords: Hemangioma, intra-lesional steroids, sclerosants, cryotherapy, embolisation.

INTRODUCTION

A 60 year old female patient visited Dayananda Sagar College of Dental Sciences with a chief complaint of a swelling on the right side of her upper lip. On examination, the lesion was well circumscribed, bluish red in colour, soft in consistency, non tender and involved the full thickness of the upper lip from the cutaneous plane to the intraoral mucosal plane through the lip muscles. There was asymmetry of the upper lip at rest and during smiling. Patient was in a good general health and did not suffer from any major or particular disease.

Based on the clinical examination, a differential diagnosis of hemangioma or arterio venous malformation was given. To confirm the diagnosis of vascular malformation and to detect lesion flow rate or other possible localization Ultrasonographic imaging (USG) was done. USG findings showed a 1.5 x 0.8cm hypoechoic submucosal lesion in the upper lip, representing a high flow lesion and thus the diagnosis of hemangioma was made.

Treatment with Intralesional injection of sclerotherapeutic agent was administered. Sclerosant was injected multiple times at different appointments. Clinical reduction in the lesion was noted in 3rd month follow up and complete resolution was seen in 6th month follow up. Follow up USG scan showed significant reduction in the vascularity suggestive of occlusion of the vessels.

Fig 1: Profile picture

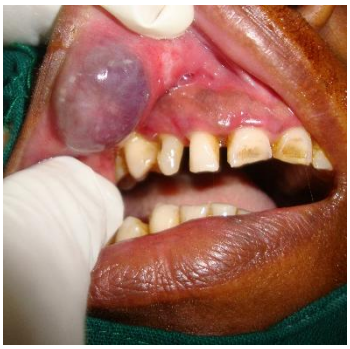

Fig 2: Intra-oral lesion

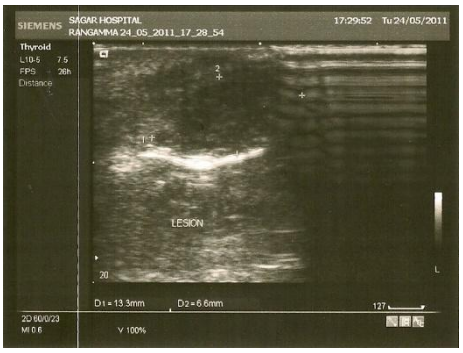

Fig 3: Ultrasound imaging of the lesion

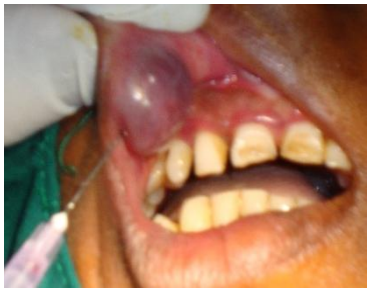

Fig 4: Sclerosant injection

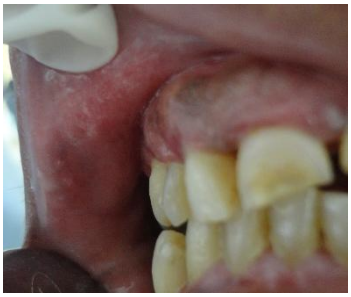

Fig 5: 3rd month Follow up

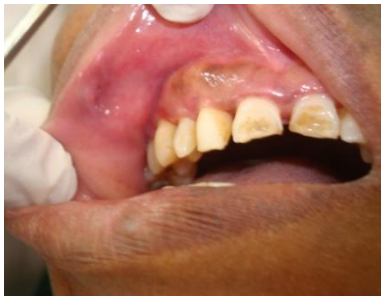

Fig 6: 3rd month Follow up

DISCUSSION

Benign vascular tumours were initially classified as hemangioma (containing blood) and lymphangioma (containing lymph) based on the type of fluid they contained, and as capillary (small diameter vascular channels) and cavernous (large diameter vascular channels) based on size of the vascular channels[2]. A classification of vascular lesions based on the histological and biological feature was given by Mulliken and Glowacki in 1982, which differentiated the vascular lesions with endothelial cell proliferation (example hemangioma) from lesions with structural anomalies (vascular malformations), but there still existed a significant confusion due to indiscriminate and interchangeable use of the terms hemangioma and vascular malformation[3,4].

Widely accepted classification from the International Society for the Studies of Vascular Anomalies (ISSVA) tries to overcome these problems in order to correctly manage these different lesions by standardized terminologies. In this classification, a double evaluation of vascular lesions is carried out: a histological and biological evaluation that is useful for predicting evolution and clinical behaviour of these lesions based on the classification and an hemodynamic evaluation of vascular lesions based on high flow and slow flow lesions classification. Hemodynamic evaluation is particularly useful for the vascular malformations where sclerotherapy for low flow lesions and embolization for high flow lesions are indicated followed, if necessary, by surgery[3,4].

Hemangiomas are very common neoplasia that affect infants and children (10-12%), found with greater frequency in girls (3:1), premature infants, and children with mothers of older age. The maxillofacial region is the most commonly involved site (60%). While most lesions are solitary (80%), multiple cutaneous lesions (three or more) are often associated with visceral involvement[2,7]. These tumours are usually detected at birth (30%) and arise within 3–4 weeks revealing different clinical characteristic and course showing an intensive growth period and an involution long process.

The terms capillary and cavernous haemangioma are replaced by more appropriately describing terms according to the depth of the lesion as superficial, deep, and compound haemangioma. Superficial haemangiomas arise from the papillary dermis and are seen as bright red macular or papular masses

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(previously called capillary or strawberry hemangioma). Deep haemangiomas appear as bluish or relatively colourless masses (previously called cavernous haemangioma) and originate from the reticular dermis or subcutaneous tissues and. Compound haemangiomas have both superficial and deep components and were previously called capillary cavernous haemangiomas[7,8].

OLD NOMENCLATURE	NEW NOMENCLATURE
Strawberry or capillary hemangioma	Superficial hemangioma
Cavernous hemangioma	Deep hemangioma
Capillary cavernous hemangioma	Compound hemangioma

HISTOLOGIC FEATURES

The lesion is highly cellular in the proliferative phase, with plump proliferating endothelial cells and pericytes, numerous mast cells and high mitotic activity. Vascular channels are not prominent. The endothelial cells are flattened in the involutive phase with a normal cell turnover rate and there are few mast cells. Blood cells filled vascular channels predominate, and fibrofatty tissue eventually replaces the lesion.

IMAGING FEATURES

Imaging of hemangiomas helps determine their extent and flow characteristics. The following modalities are used- Angiography is considered the most definitive of the studies, although the angiographic appearance of intraosseous lesions is less well defined than that of soft tissue lesions.[12] Ultrasonography can be used to determine that a lesion is angiomatous in nature, but it cannot be used to differentiate a hemangioma from a lymphangioma. To differentiate a hemangioma from a lymphangioma in the oral cavity Contrast-enhanced MRI can be used.[13] MRI appears to be highly reliable for lesions of either soft tissue or bone. Central vascular malformation of the bone when viewed on plain films or panoramic radiographs, usually has a honeycomb appearance or cystic radiolucencies.[12] Intraosseous vascular malformations show a nonspecific reticulated or honeycomb pattern that is well demarcated from normal bone or a sunburst effect, created by spicules radiating from the center. CT scans often show an expansile process with a high-density amorphous mass that may be suggestive of fibrous dysplasia.

TREATMENT

Management of haemangiomas is based on the stage of the lesion (proliferative or involutive phase), type of lesion (superficial, deep, compound) and the management of residual deformity. Most true hemangiomas require no intervention but 10-20% require treatment because of their size their location or their behaviour. In general, life-threatening and unsightly haemangiomas should be dealt with, regardless of the stage of the lesion. Active intervention should be considered in all disfiguring haemangiomas, only after careful discussion of its merits, and counselling to prevent potential psychosocial trauma and cosmetic deformity.

Steroids remain the mainstay in treatment of proliferative hemangiomas in infants and children. High doses of systemic or lesional steroids are the first line treatment and a dramatic response is observed in 30%of patients. Prednisolone, 20-30mg/d for 2weeks to 4 months ids given.

Treatment using Interferon alfa has been documented but the risk of spastic diplegia exists.

Surgical excision of these lesions offer best chance of cure but are associated with significant sacrifice of tissue. Thus adjuvant procedures have been used to reduce or eradicate the lesion, leaving less functional impairment. They also reduce morbidity of the surgical procedure and reduce blood loss[5].

Embolization is one of the commonly used adjuvant procedure in treatment of vascular lesions.

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Laser therapy has gained popularity and has evolved where more selective photothermolysis can be obtained rather than nonselective tissue destruction.

Cutaneous lesions treated with cryotherapy are seen to be associated with scarring but canbe used in treatment of oral mucosal lesions. It is reported to provide minimal scar contracture and good hemostatsis.

Local sclerosing therapy proves beneficial in treatment of small lesions at sites where surgical excision may cause significant functional and esthetic compromise. Various sclerosants used are 3% sodium tetradecyl sulfate, 5% ethanolamine oleate, pingyangmycin, polidocanol, sodium morrhuate. Local reactions consisting of pain urticarial or ulceration may occur at the site of injection. Sloughing and necrosis of tissue may occur if there is extravasation of the drug. Allergic reactions, asthma, hay fever and anaphylactic shock have been reported. Mild systemic reactions including headache nausea, vomiting may occur[6].

CONCLUSION

Hemangiomas of oral cavity are not common pathologic entities, but among hemangiomas, the head and neck are common sites. Most hemangiomas involute with time, but certain small percentage do not, which may present with complications that require treatment. Diagnosis is the key in proper management of such lesions. The treatment done by us showed effective results and maybe considered for such small lesions but for larger lesions more extensive surgery may be required.

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