



EXPLORING LOBULAR CAPILLARY HEMANGIOMA, DIFFERENTIATING LOBULAR CAPILLARY HEMANGIOMA FROM MUOCOCELE- INSIGHTS FROM HCG CANCER CENTER ONGOLE AND MISTAKEN IDENTITY

Vascular Surgery

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ABSTRACT

A hamartomatous proliferation of endothelial cells, known as a hemangioma, can occur during the neonatal period or be present from birth. When they appear in adults, they present a diagnostic conundrum. This is a brief case of a female patient, age 53yrs, who had presented with a three-week-old polypoid lump on the lower lip that, upon histopathologic examination, was determined to be a lobular capillary hemangioma reported to surgical oncology DMG at HCG Cancer Care Center ongole.

KEYWORDS

Oral Hemangiomas, Capillary Hemangiomas, Vascular Malformation Sclerotherapy

INTRODUCTION

True neoplasm of endothelial cells coined as hemangiomas. The term “hemangioma” is derived from the Greek term “hema” denoting “blood,” ‘angio’ denoting “vessel,” and the suffix-oma denoting “tumor” (Nagaraj et al., 2016). Always the lesion should be differentiated from vascular malformations which are localized defects of vascular morphogenesis. Mulliken had given the classification of hemangiomas in 1982⁽¹³⁾. An improper usage of various names for vascular lesions was discovered after a review of numerous scientific publications and the most recent editions of medical text books, which added to the confusion. so, International Society for the study of Vascular Anomalies (ISSVA) had given a classification which differentiates lesions with structural anomalies, has been useful⁽⁵⁾. According to this clear understanding of tumors, lesion had explained very crystal clearly. Modified classification is as follows table -1

Vascular Tumours	Vascular Malformation
Infantile Hemangiomas	Slow -flow
Focal, Segmental, Indeterminate	Capillary –port Wine Stains, Telengectasia, Angiokeratoma
Congenital Rapidly Involuting	
Congenital, Non Rapidly Involuting	
Congenital, tufted Ngioma, Pyogenic Granuloma, Kaposi Form	
Heamangioendothelioma.heamangioendothelioma-skin Acquired	
Venous Malformation-bean Syndrome, Maffucci Syndrome, Sporiadic Type, Familial Type VMCM GVM	
Lymphatic-lymphigoma Cavemosum, Circumscription, Cysticum	
High- Flow- Arterial Malformation, AV Fistula, AVM	
Combined Malformation –Capillary +Venous+Arterial	

Etiological Factors

Genetic Mutations

Embolic Phenomenon

Hormones may play a prominent role in development.

Hypothesis: During fetal circulation following trauma or other cellular stress as stem cells. Here chorionic villus sampling increase the risk.

Spontaneous or inherited, loss of functional mutation on chromosome 5q lead to constitutive action on angiogenesis, resulting in hemangioma formation.

Third hypothesis – Due to upregulation of vascular endothelial growth factor (VEGF) and glucose transporter 1 (GULT 1) production by nearby cells in response to hypoxic stressors. Female predominance is seen.

Case Senario

A female patient reported to DMG surgical oncology with the complaints of small growth on the lower lip since 1month and had masochistic habit that is cheek biting, lip biting. On examination the growth resembles like a polypoidal lump at the lower lip at the tubercle

area /vermillion area and free from vermillion border, Vermillion zone is the point of growth measuring 1x1.5cm. Incisional Biopsy performed, the histopathological study showed stratified squamous epithelium with ulceration, the sub epithelial stroma show lobules composed of vascular proliferation and inflammation suggestive of lobular capillary hemangioma.

The choice of treatment modalities explained and based on the patient choice curative intent was chosen.

Surgical Intent

After thorough investigation, planned for Excision of growth. Under aseptic condition, conscious sedation by using ketamine as anesthetic agent patient induced, scrubbing and draping, the lesion site is exposed for surgical procedure. The lesion measured 1x1.5cm are identified, local infiltration is administrated around the lesion by using saline. Away from lesion with distance of 0.5mm Incision with scalpel no 15mm around the lesion fig:1 the growth is held with Addison and layer by layer dissection is performed. The inferior labial artery is identified and ligated by hemostat. The growth is resected, Incision is extended. The incision is extended and flap relieved and primary closure by vicryl 3.0mm and pressure dressing given fig 3. Specimen send for histopathology. The definitive diagnosis after histopathology study main specimen measured 0.8cmX 0.5cm X.05cm showed stratified squamous epithelium with ulceration covered by inflammatory exudate. Underlying stroma showed lobular pattern of vascular epithelium.

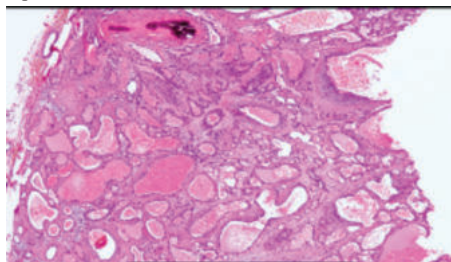


Fig 1- Histopathological



Fig 2- Incision And Lesion Exposure



Fig 3- Primary Closure

DISCUSSION

Hemangiomas in the oral cavity are not commonly encountered by general dentists⁽¹⁻¹⁰⁾. In fact, hemangiomas are rarely seen in the oral cavity especially in the oral soft tissue (Handa et al., 2013). Hemangiomas can appear as a single lesion in the mouth cavity or as several lesions spread throughout the body⁽¹¹⁻¹⁷⁾. Oral hemangiomas (OHs) are benign tumors that develop due to endothelial cell proliferation and occur in and around the oral cavity⁽¹¹⁻¹⁴⁾. While 60 to 70 percent of hemangiomas occur in the head and neck region, OHs are relatively rare and most frequently involve the lips, tongue, buccal mucosa, and palate and rarely cranial i.e mainly extracranial and intracranial hemangiomas are present⁽¹¹⁻¹⁴⁾. OHs have also been noted in the mandible and maxilla (central hemangiomas) and within the masseter and other muscles of mastication (intramuscular hemangiomas)⁽¹¹⁻¹⁵⁾. According to Kartik et al. (2017), they may also be linked to further developmental abnormalities in other angiomatous syndromes, such as Osler-Weber-Rendu syndrome or Hereditary Hemorrhagic Telangiectasia. Known the case indeed discussed about lobular capillary hemangioma which is benign in nature⁽¹¹⁻¹⁷⁾. Reactional response to trauma, irritation, masochistic habit's poor oral hygiene, Inflammation hormones, steroids etc⁽¹⁷⁾. FNAB can be a used as a diagnostic stool⁽¹¹⁻¹⁵⁾. Radiological diagnostic stool is color doppler ultrasound is cost effective, non-invasive clearly gives the morphological and vascular information, in case of intraosseous or intramuscular hemangioma is suspected, a contrast enhanced MRI would be the imaging modality of choice this is superior to CT scan⁽⁸⁻¹²⁾. In general, biopsy of OHs better to avoid, due to high risk of bleeding. But for malignant condition biopsy is the best choice⁽¹¹⁻¹⁷⁾. Treatment of choice is conservative, and curative intend, medical and surgical. Nguyen et.al.2014 proposed Beta -Blockers such as propranolol is the choice of treating oral hemangiomas⁽¹⁴⁾. The mechanism of action in thinking of surgeon's is it is a vasoconstrictor had a trigger of apoptosis in endothelial cells. Propranolol 2-3 mg/kg divided into three doses with improvement in OH appearance noted in 1-2 days after therapy⁽¹¹⁻¹⁷⁾. This extends up to 6months to be monitored for side effects of bradycardia, hypotension, hypoglycemia, and bronchospasm. Stuppe.et.al proposed Sclerotherapy is the other modality and surgical intervention is the modality of approach for OHs⁽¹¹⁻¹⁶⁾. Laser excision is the best modality cost effective.

CONCLUSION

In this case the surgical intent is specified because of the lesion is polypoidal, so surgical intervention of the lesion is best. Other lesion which are soft and web appearance, sclerotherapy and interventional radiotherapy serves the best treatment outcome. We suggest that lesion size and texture and etiological factors play a major role for treatment and diagnostic tools are very important. The curative intent is the best choice for this cases there is no branching of capillaries. Female predilection. Adult and infants were more likely to be affected. 1st and 3rd decade were more effected with Ohs. Further modalities of approach for treating hemangiomas to be beneficial for the patients.

Deterrence, Patient Education And Consultations

Assurance will be given to patients on medical therapy, education, and regular follow up are necessary to monitor for drug side effects that these lesions are benign and demonstrate high rate of involution. Post surgical monitoring is mandatory.

A team approach is recommended with surgical oncologists, head and neck oncologists oral and maxillofacial surgeon and interventional radiologists.

ABBREVIATION AND FULL FORMS

OHS- Oral Hemangiomas

AV – Arterial Venous Malformation

GULT 1- Glucose Transporter 1

VEGF- Vascular Endothelial Growth Factor

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