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STAR CROSSED CURSE OF CHILDHOOD- A CASE REPORT

Dental Science

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ABSTRACT

Hemangiomas are relatively common benign proliferative lesion of vascular origin. They are present at birth and become more apparent throughout life. Approximately, 50% of hemangioma resolve by itself and 90% resolve at age of 9 years, and it rarely persists. Most commonly, hemangiomas are located in the head and neck (usually lips, tongue and palate).The patient may undergo psychological issues as this is a cosmetic deformity. In order to overcome this systemic treatment and surgical treatment (to acquire complete esthetic repair) are usually followed. In this case report we present a case of a 14year old male patient who was diagnosed with the hemangioma of the left upper lip treated with sclerotherapy followed by complete surgical excision.

KEYWORDS

Antibiotics, Analgesics, Dental students, Prescription

INTRODUCTION:

Congenital vascular anomalies otherwise known as birthmarks are usually seen on the skin and mucosa at a variable degree.[1,2,3]Most frequently they occur in the newborns and toddler and such anomalies may occur rarely in the adults and are vernacularly known as “strawberry marks”. Hemangioma usually occurs on face and chest which is benign and can occur anywhere in the body. Approximately, 30% of children weighing 1kg are commonly detected with similar lesions. It was proved that it affect the females commonly with the ratio of 3:1[3,4,7,8].It can be classified into many types , but the widely accepted classification is Mulliken and Glowacki classification which was put forward in the year 1982.Another classification was put forward by International Society for the Study of Vascular Anomalies (ISSVA) which was adopted at a workshop in Rome(1996) and has been revised several times[5,6,7].The classification was last revised on 2018 where it is broadly divided into the vascular tumors and malformations[6]. Sometimes, hemangiomas are classified into two as “infantile” or “congenital”.

The hemangioma markers coincide with placental tissues (i.e., hematopoietic progenitor cells)which is in favour of the fact that it can be acquired congenitally or at infancy. The congenital hemangiomas usually involve RICH(rapidly involuting congenital hemangioma) or it may never involute NICH (non involuting congenital hemangioma) and the rest will focus on the infantile hemangioma. It is also noted that the abnormal levels in the MMP-9 and pro-angiogenic factors such as VEGF, b-FGF, and TGF-beta 1 are believed to play an important role in the pathogenesis[6] .Sometimes genetic errors in growth factor receptors affects the development of hemangiomas. It was also proven that it occurs due to imbalance in angiogenesis which leads to uncontrolled vascular proliferation and may appear rubbery in consistency[9].

As mentioned above many lesions may emerge due to injuries, and some may be associated with genetic abnormalities. It is regarded that it starts as a faint, red, fast growing lesion and most of them recedes spontaneously needing no further treatment but if symptomatic it may cause severe neurological disorders which would require immediate treatment. Usually, a multidisciplinary approach is required to treat the malformations and a long term follow up is to be done.[5,7,9]

CASE REPORT:

A 14 year old male child came to the Department of Oral Medicine And Radiology with the chief complaint of painless swelling in the left upper lip since one year after birth. Patient was apparently normal from birth till 1year of age after that his parents noticed a swelling in the left upper lip after a trauma. Patient does not give any history of pain in that region. Medical, Dental, Family and Personal histories were not contributory. The general examination was normal with all his vital signs being within the normal limits. Intraoral findings revealed a localized, well defined solitary swelling on the upper labial mucosa on the left side extending upto the angle of the mouth measuring 3x4cm approximately with a bluish tint over the skin lining it[FIG.2].While palpation, the lesion appeared soft in consistency and was non tender with normal temperature with no appreciable thrills but it blanched on compression. The surrounding tissue appeared normal.

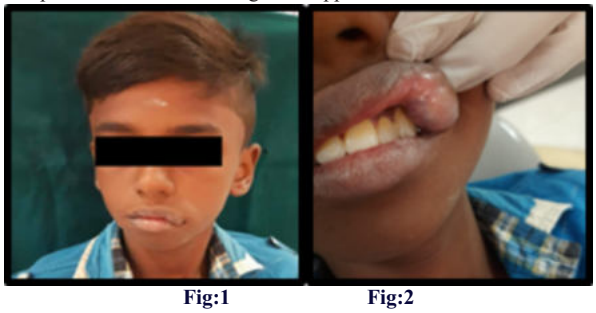

Fig:1 Fig:2

On considering the above history and examination the provisional diagnosis was put forward as Haemangioma of upper lip, which was rendered with differential diagnosis of Vascular malformation, Mucocele. In order to rule out the differential diagnosis, investigations were performed. Diascopy test was positive[FIG.3].PT,APTT showed normal values. Other blood investigations were normal. Ultrasound showed hypoechoic lesion in the subcutaneous plane of left upper lip which is suggestive of hemangioma [4]. By, running the investigation it was confirmed as hemangioma of the upper lip.

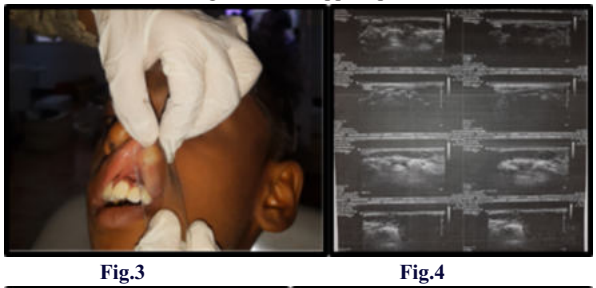

Fig.3 Fig.4

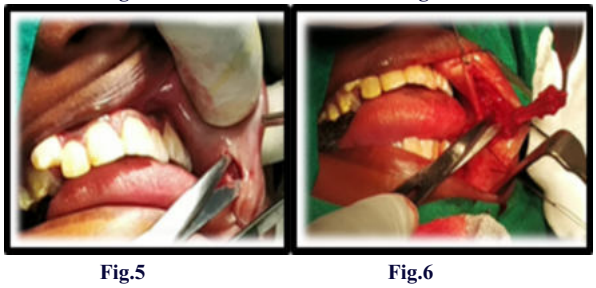

Fig.5 Fig.6

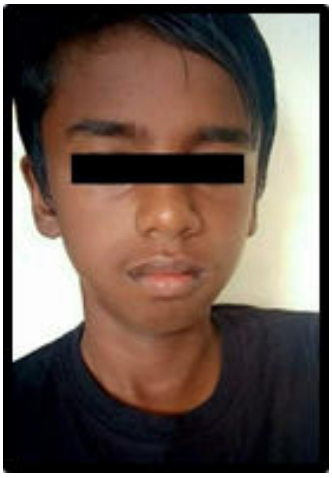

Fig.7

The treatment was done under general anaesthesia. At first, embolization was done which lead to the collapse of the swelling , then complete surgical excision was done after which haemostasis was checked and suturing was done[FIG.5,6].The post operative period seemed uneventful and the child was treated with i.v antibiotics. The patient was recalled periodically and no recurrence was observed for 2years.[FIG.7]

DISCUSSION:

The article broaches us on hemangioma which is a benign hamartomatous endothelial proliferation which may be smooth and lobulated that presents with birth or can developed on injured site.[1,8,10] The most accepted two forms of anomalies i.e hemangioma and vascular malformations are usually similar, but they differ in pathogenesis and clinical behaviour and in treatment modalities. Histologically, these are classified into three:

1. Superficial/Capillary Hemangioma
2. Deep/Cavernous Hemangioma
3. Compound/Combined Hemangioma

Hemangioma occurs with high female predilection, and has a high incidence on upper lip with the etiology of unbalanced angiogenesis which leads to uncontrolled proliferation of vascular elements, some may develop from injuries, some develop with pregnancy and later regress and some maybe associated with genetic reasons (such as in von Hipple-Lindau disease).[1,4]

There are two theories which explains the pathogenesis of hemangioma :-[3,4]

✔ **First theory:**

Hemangioma endothelial cells arise from the disrupted placental tissue imbedded in fetal soft tissues during gestation or birth.

✔ **Second theory:**

Arose from the discovery of the endothelial progenitor and stem cells in the circulation of the patients with hemangiomas.

There are 3 phases of hemangioma,

Rapid Growth	Stagnation Stage	Regression Stage
Proliferative	Quiescence	Involution

Nearly 80% of lesions are single ,but 20% of the affected patients will have multiple tumors. These lesions appear bright red(near epithelium) or bluish in colour(deeper in connective tissue).It is a painless, elevated and nodular lesion which blanches under pressure(diascopy test),the same classic feature was noticed in this patient. The common complication is ulceration or secondary infection. The differential diagnosis may involve mucocele (fluctuant and is negative to diascopy test) and vascular malformation (present since birth and enlarges with growth of child).The common investigation which used to evaluate are X-rays Ultrasound and CT scans, Doppler scans , MRI and Biopsy. Generally, hemangiomas are rarely neoplastic and requires no treatment unless it attains a problematic situation , as it may regress at the age of 7years but in this case it did not regress. The medical management involves the systemic therapies , corticosteroids interferon and vincristine have been used for life threatening conditions.[3,6]But elective subtotal excision is considered to be the best for localised lesions as it may conserve the esthetic boundaries and that was done for the patient presented here. The intralesional injection of sclerosing agents ,cryosurgery, lasers and embolization can also been proceeded[7,10].

CONCLUSION:

The hemangioma is a proliferative congenital or acquired disorder which usually causes a challenge in the diagnosis. It arises at birth or may occur due to injury and is usually benign which may resolve mostly at the younger age (i.e between 7years to 9years).Early detection and biopsy evaluation to be done in order to prevent the complications. The treatment was performed in this case as the anomaly did not regress even at the age of 14years.

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