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Case Report

Idiopathic gingival fibromatosis – A Rare Case Report

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ABSTRACT

Idiopathic gingival enlargement is diverse group of chaos. The situation manifests itself by progressive enlargements of gingival tissue. This gingival enlargement is maily caused by an increase in the sub mucosal connective tissue element. This type of enlargement is a proliferative fibrous lesion. This proliferative lesion causes esthetics and functional problems. The condition is atypical and inherited . The condition mostly involves keratinized gingiva .The nature of condition is slowly progressive, not hemorrhagic. The involvement is fibrous in nature. The case report is of 13 year old male. The patient presented with diffused gingival enlargement involving maxillary and mandibular teeth on right side .Biopsy report confirmed the diagnosis of gingival hyperplasia. Surgery excision was carried out without any recurrence.

BACKGROUND

Idiopathic gingival fibromatosis is an unusual condition. It is benign in nature.It is an inherited condition and is without any specific cause. The characteristic feature of this condition is slow progression, non haemorrhagic type , fibrous enlargements involving maxillary and mandibular keratinized gingival tissues.[1] This situation can be seen during the eruption of permanent teeth. The primary dentition is seldomly occupied. The manifestation of this condition is not seen frequently at the time of birth. This situation may demonstrate wide-ranging staging like it may be present in the localized form or in the generalized form.[2] The condition may be iatrogenic in origin, some cases are inborn and some are idiopathic[3]. Three facors are linked for the occurance of this condion individual susceptibility, local factors and the action of chemical substances and their metabolites.[4] .The situation may be painful as the tissue enlarges and covers the occlusal surfaces of the teeth leading to difficulty in mastication, speech and swallowing leading to hindrance in maintaining good oral hygiene and causing plaque accrual.[5]

CASE REPORT

A 13 years old male (fig 1) patient came to dept of oral medicine and radiology dept with complains of gum overgrowth and difficulty in mastication in right upper and lower back region of jaw since 1 ½ years, which was small in size and gradually increased. It appeared after the permanent teeth been erupted and causing difficulty in mastication. His parents thought it will

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subside as the permanent tooth erupt. He is on soft diet since 1month.

Figure 1: Pre-operative

Figure 2: Gingival Growth in maxilla

EXAMINATION

- Extra oral examination :

It shows convex profile. Submandibular lymph node of right & left side are tender, palpable, mobile, single, soft, roughly oval, approximately o.5 cm in size.On Intra oral examination :Gingival overgrowth extending from mesial aspect of 22 and involving 21,11,12,13,14,15,16 in maxilla (fig 2) and mandible from distal of 41 and involving 42,43,44,45,46 (fig 3).The gingival

Figure 3: Gingival Growth in mandible

overgrowth is seperated from the tooth. The gingiva is swollen with bleeding and probing . Gingival overgrowth is extending upto cervical 1/3 in 21,11.middle 1/3 in 12.and apical 1/3 in 14,15,16. In mandible it is extending upto cervical 1/3 in 41.middle 1/3 in 42,Apical1/3 in 43,44,45,46. Palatal it is extending from distal aspect of 12 upto cervical region and in 14,15,16 region involving upto apical 1/3.gingiva is pink in colour while consistency is fibrous and firm. Anterior deep bite is seen. Pseudopockets were present in 11,12,13,14,15,16,21,31,41,42,43,44,45,46. .

On investigation

1) OPG (fig 4) showing bone loss in15,16 and 45,46. Erupting13,23,17,27.Incomplete root formation with 37,47. Tooth bud of 18,28,38,48

2) Exicisional biopsy (fig 5) was done on right lower front and back region of jaw . Size of the specimen was 4.5 x1 cm (fig 6)

Figure 4: OPG

HISTOPATHOLOGY REPORT

The tissue is covered by keratinized stratified squamous epithelium , while subepithelium show dense and diffused lymphocytes and polymorphs. There is also proliferation of fibro-collagenous tissue.

Figure 5: Exicisional biopsy

Histopathological Diagnosis:

Benign squamous hyperplasia of gingival.

Final Diagnosis

Idiopathic gingival enlargement of right side of maxilla and mandible

Figure 6: Size of the specimen was 4.5 x1 cm

DISCUSSION

Idiopathic gingival enlargement may be inherited or genetic. The mode of spread is mainly autosomal dominant.[6,7] The greater part of the reported cases have recognized the condition of fibrous enlargement of gingiva to genetic factors. The first polymorphic marker for HGF phenotype is chromosome 2p21.Many cases are periodic with no ancestral back ground.[8,9]

Gingival enlargement does not occur until the eruption of the permanent teeth. The enlargement does not occur once the growth of jaw is completed. The constant increase in the tissue mass may lead to late eruption, spacing, displacement of teeth and migration of teeth. The condition is not painful until the tissue covers the occulusal surface of molars as observed in present case.[10]

Gingival hyperplasia can occur after drug therapy like phenytoin, cyclosporine, nifedipine, and nitrendipine. The rate of gingival enlargement caused by phenytoin, an anticonvulsant used in the treatment of epilepsy varies from 3−84.5%,while cyc

losporine which is a quite effective immunosuppressive agent, used to prevent organ transplant rejection and to treat several disease of autoimmune origin, induced

gingival enlargement in 30% of the cases. nifedipine, which is a calcium channel blocker used in the treatment of acute and chronic coronary insufficiency, including angina pectoris and refractory hypertension and nitrendipine an analog of nifedipine have also been reported to induced gingival enlargement. Long-term use of these drugs has to be ruled out.[11-14]

Gingival hyperplasia may be associated with physical development, retardation, and hypertrichosis.[15] The gingival tissue may appear normal at birth but become obvious with the eruption of deciduous or permanent dentition. It has been suggested that gingival enlargement may occur due to nutritional and hormonal factors; however, these have not been completely substantiated. Due to massive gingival enlargement, an affected child usually develops abnormal swallowing pattern and experiences difficulty in speech and mastication. along with these features, there may be some interference with the oral hygiene measures and normal mastication. all these will favor accumulation of materia alba and plaque, which further complicates the existing hyperplastic tissue. maintenance of good oral hygiene is very important. it is not known if plaque control measures are effective in this condition; however, it is a good practice to maintain the plaque control following gingivectomy procedure.

Histologically, the gingival hyperplasia is mainly due to an increase and thickening of mature collagen bundles in the connective tissue stroma. the nodular appearance can be attributed to the thickened para hyperkeratinized epithelium. various modalities of treatment had been proposed including radical treatment with extraction of the involved teeth, which was reported not to favor a recurrence of the growth. the only treatment of choice in this condition was gingivectomy to procedure was complicated with excessive hemorrhage. Since recurrence could be expected within a few months after surgery and may return to the original condition within few years, the patient may have to undergo repeated gingivectomy procedures. This often causes further increase in the patients′ and parents′ psychological and emotional stress. Hence, psychological counseling is a must for patients and parents.

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