Idiopathic Gingival Enlargement : Case Reports

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Abstract

Various etiological factors are found to be associated with gingival enlargement these include drug induced or can be a manifestation of a genetic disorder. In the latter, it may exist as an isolated abnormality or as part of a syndrome. A case reports of 20 yrs of old female & 22yrs of old male patients with a complaint of swelling gums was reported in the department, both had a moderate to severe ,diffuse gingival enlargement in the maxilla and mandible .The diagnosis was ruled out on the basis of past dental ,medical and family history along with clinical examination and histopathological picture.

Key Words : Fibromatosis, Idiopathic Gingival enlargement, Elephantiasis Gingivae,Gingival enlargement, Gingivectomy.

Introduction

Gingival enlargements is multifactorial in origin. A good oral hygiene is always important to achieve normal healthy gingival. Gingival fibromatosis also called as fibromatosis[1], fibromatosis gingivae [1]elephantiasis gingivae[1] or congenital macrogingiva[1]' is a slowly progressive gingival enlargement caused by a collagenous overgrowth of the gingival fibrous connective tissue [2].Inspite of the name, the disorder do not bear any relation ship to the hyper cellular and neoplastic fibromatoses that can occur in soft tissue and bone[2]. A slowly progressive fibrous enlargement of the maxillary and mandibular gingiva is a feature of idiopathic fibrous hyperplasia of the gingiva. Characteristically, this massive gingival enlargement appears to cover the tooth surfaces and displace the teeth, whilst the cause of the disease is unknown, there appears to be a genetic predisposition.[3-4]The cause is unknown and thus the condition is designed as idiopathic. Some cases have hereditary basis[5,6,7] A study of several families found the mode of inheritance to be autosomal recessive in some cases and autosomal dominant in others[8,9] Recent research has shown that 2 genetically separate loci are responsible for the autosomal dominant type of fibromatosis.[10] Gingival fibromatosis may exist as an isolated abnormality or as part of a syndrome.[11,12]e.g. As an isolated finding, it is mostly sporadic, but an autosomal dominant inheritance pattern is also possible. Rarely, autosomal recessive inheritance is found. The various syndromes associated with it are Rutherfurd syndrome consist of the association of gingival fibromatosis and corneal dystrophy is recognized as an autosomal dominant trait[11] Zimmerman-laband[2] consist of idiopathic gingival fibromatosis(IGF) ,ear nose nail bone defect with hepatosplenomegaly . Ramon syndrome is another autosomal recessive, condition involving gingival fibromatosis, as well as hypertrichosis, mental-retardation, delayed development, epilepsy and cherubism.[13] Cross syndrome[2] characterised by IGF ,micropthalmia, mental retardation athetosis and hypoigmented skin. The degree of gingival enlargement appears to be related to patient's susceptibility and the level of oral hygiene [8].The co-relation between gingival hyperplasia and poor oral hygiene is positive .However some degree of gingival enlargement is seen in susceptible person.

Very often we came across certain patients that reported the dental clinics with gingival tissue that are diffusely enlarged ,that the teeth are completely covered , or if the enlargement is present before tooth eruption ,the dense fibrous tissue may interfere or prevent eruption. A typical case of idiopathic fibrous hyperplasia presents large masses of firm ,dense, resilient insensitive fibrous tissue that covers the alveolar ridges and extends over the teeth[1]. It is normal in color, noted in early age before 20 yrs. Gingiva is so enlarged that the lips protrude[1]. Histological section shows idiopathic fibrous hyperplasia of the gingiva with moderate hyperplasia of epithelium and mild hyperkeratosis and production of long rete pegs. The underlying stroma is made up almost entirely of dense bundles of mature fibrous tissue with few young fibroblast present.

Case Report-1

A 20 yrs old female patient reported to the department of periodontology of SPPGIDMS LUCKNOW with the chief complaint of swollen gums in the upper and lower jaws with no significant medical or family history .She stated that swelling was present since 10 yrs.

On clinical examination extraorally the face was bilaterally symmetrical but the lips were not competent and protruded in nature (fig-a,fig-b). Intraoaral examination shows diffuse gingival enlargement extending more on the facial and buccal aspect of upper and lower jaw (fig-c). The plaster model showing (fig-d) enlarged gingival growth. The palatal surface was also involved together with the enlargement more pronounced on the posterior region bilaterally in respect to molars. (fig-e) ,similarly in lower arch also the enlargement cover the posterior lingual aspect. (fig-f) The gingival tissue was firm, dense, resilient cover the alveolar ridge along with the tooth surface till one-third coronally to cement -enamel junction. The gingiva shows some amount of stippling. Pockets were suprabony in nature with base of the pocket around 5-7mm present both labially, palatally. The pockets were accompanied with presence of plaque and calculus which was responsible for some part of its superimposed inflammatory component which was responsible for mild bleeding on probing. Patient brushes her teeth daily but only once a day that too in the morning.

Radiographically

Radiographically (fig-g)no bone loss is seen in the orthopantomogram (OPG).

Treatment

Scaling was done which later on was followed by gingivectomy (fig-h)healing after 3 months

Histopathology

The histopathological report of idiopathic gingival fibrous hyperplasia of shows mild hyperkeratosis and production of rete pegs .

The underlying stroma was made up almost entirely dense bundles of mature fibrous tissue with few young fibroblast with condensed collagen, confirming the diagnosis of idiopathic fibrous hyperplasia (fig-i)

Case Report-2

A 22 yrs old male patient reported to the department of periodontology of SPPGIDMS LUCKNOW with the chief complaint of swollen gums in the upper and lower jaws with no significant medical or family history. He stated that swelling was present since 6yrs.

On clinical examination extraorally face was bilaterally symmetrical (fig-j) with

marked protruded lips(fig-k). Intraorally gingival enlargement was seen in both upper and lower jaw (fig-l, fig-m,). Enlargement was associated with mild amount of plaque and calculus and mild bleeding on probing. Due to enlargement pathological migration was reported in upper and lower anterior segment but more pronounced in lower(fig-m) which was not present initially and progressed slowly over time as reported by the patient himself.

Radiographically: The OPG shows no bone loss.

Treatment

Initially scaling and rootplaning was done followed by gingivectomy. fig-n (showing postoperative healing after 1 week of lower labial gingivectomy) fig-o (showing postoperative healingafter 1 week of lower lingual gingivectomy)

Discussion

As the cases presented with no significant medical, or family history and the enlargement is noninflammatory there fore the condition is diagnosed as idiopathic gingival enlargement.

Idiopathic gingival enlargement is a condition with undetermined causes. Hereditary basis is autosomal dominant or autosomal recessive. Usually begins with the eruption of primary and secondary dentition and regress after extraction suggesting that the teeth may be the initiating factor . Clinically it effects both the jaws involving the inter-dental papilla and marginal gingiva involve both facial and lingual surface and found as pink firm leathery in consistency. Enlargement sometimes project into the vestibule with the involvement of secondary inflammation due to accumulation of plaque and calculus[9]. Histopathologically shows abundant collagen with increased number of fibroblast, epithelium shows acanthosis and rete pegs. Treatment part involves the scaling, rootplanning followed by gingivectomy .

Conclusion

The above case reports presents the rarely occurring condition of gingival fibromatosis. Both the cases were not associated with any of the syndrome and were diagnosed on the basis of clinical, radiographic and histopathological assesment .

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Legends

Fig-a	Frontal view
Fig-b	Lateral view
Fig-c	Intra oral pre-operative view
Fig-d	Facial view of enlarged gingiva
Fig-e	Plaster model of upper arch showing
Fig- f	Lingual aspect
Fig-g	No bone loss
Fig-h	After gingivectomy
Fig-i	Histopathological slide
Fig-j	Facial view enlargement on palatal aspect
Fig-k	Lateral view with protruded lips
Fig-l	Facial view of enlargement
Fig-m	Enlargement of lower arch showing pathological migration of lower central incisors
Fig-n	Postoperative (labial view)after a week
Fig-o	Postoperative (lingual view)after a week

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