Non-surgical

Patient was educated on her oral hygiene status, and a thorough supragingival scaling was done, followed by a full mouth subgingival root surface debridement. Patient was prescribed 0.2% chlorhexidine mouthwash twice daily and was motivated to follow a good plaque control regimen. Patient was reviewed after 4 weeks, and the lesion showed marked improvement in surface characteristics and there was a reduction in the size of the lesion and associated with clinically marked reduction in the probing depth to 6 mm. Once again subgingival root surface debridement done in relation to 11, 12 region and patient was advised to maintain the plaque control measures. Patient was subsequently evaluated again after one month and probing depth further reduced to 5 mm (Figure 2).

Surgical

Surgical intervention was planned, to excise the remaining hyperplastic tissue. Since, the patient had a diastema between 11 and 12, a papilla preservation flap was planned, to preserve the inter-dental papilla and also to prevent the apical migration of marginal gingival in relation to 11, 12. Under 2% lidocaine with 1:80,000 adrenaline infiltration, open access was gained, for thorough root surface debridement, and the hyperplastic soft tissue was excised including the 2 mm of adjacent soft tissue and was sent for histopathological examination (Figures 3-6).

Discussion

The histological picture of many of the focal gingival hyperplastic lesion overlaps substantially, hence there is a significant need to properly differentially diagnose each of those lesions. A wide search of scientific literature, implies this case can be differentially diagnosed with five main types of reactive focal hyperplastic gingival lesions including Peri-implant giant cell granuloma, peripheral ossifying fibroma, pyogenic granuloma, hemangioma and focal fibrous hyperplasia. Histopathological examination of the lesion in this case report revealed a mass of connective tissue partly covered by stratified squamous epithelium. The connective tissue was comprised of collagen fibers which are densely arranged in the most of the areas, while they are loosely packed in some areas with mild to moderate chronic inflammatory cell infiltrate. Also areas with increased vascularity was evidenced. Hence from the above histological findings the lesion was interpreted to be a Fibro-epithelial mass with increased vascularity and inflammatory cell infiltrate suggestive of pyogenic granuloma. Correlating the patient’s clinical features and histological features of the lesions, the lesion resembled more of a pyogenic granuloma and the other lesions were ruled out.

As peripheral giant cell granuloma, histologically has numerous giant cells in the connective tissue stroma, hence it was not considered. Similarly, a peripheral ossifying fibroma has minimal vascular component and a focal fibrous hyperplasia is avascular unlike the lesion in our present case report. In addition hemangioma, histologically has endothelial cell proliferation and without acute inflammatory cell infiltrate, hence the diagnosis of the lesion fell more in favor of a pyogenic granuloma.

Traditional management of focal gingival hyperplastic lesion involves an excision and
biopsy, but it carries the risk of post surgical soft tissue deformities in the form of receding gingival margin and also decrease in the width of attached gingiva, hence we followed a much conservative approach of reducing the size and extent of the lesion, before proceeding with any surgery to minimize post surgical deficit. Adhering to a protocol involving initial removal of local factors and all other irritants followed by surgical removal aided in minimal soft tissue deformities in this case, hence eliminating the need of any periodontal plastic procedures in the future.

The present case was followed up for a period of 3 years and no recurrence was observed.

Conclusions

This case report highlights that how a focal reactive gingival hyperplastic lesion in the anterior region was conservatively managed, preserving good soft tissue aesthetics. Though in this case, the histological findings were suggestive of a pyogenic granuloma, we believe a staged conservative approach like this worked in our favor and aided optimal regression of the lesion with excellent soft tissue esthetics.
References