

Massive gingival fibrous lesion excision using acellular dermal matrix for gingival regeneration: Case report

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Localized gingival fibrous lesions (GFL) can be aesthetically disfiguring clinical condition and are often associated with specific local, systemic or unknown factors. Treatment of GFL's includes wide excision of the lesion followed by the often difficult task of restoring soft tissue function and esthetics. This report describes the use of acellular dermal matrix (ADM), following lesion removal, which resulted in an excellent clinical outcome for the patients. A 22-year old Asian male and a 50-year old African-American female presented with a recurrent painless swelling of the maxillary anterior gingiva. The lesions presented a 1. 7 x 1. 3 cm, pink, smooth, firm but not "bony hard" nodular mass of the maxillary facial gingiva. A periapical radiograph showed mild horizontal bone loss between teeth. They reported that the lesion had been removed at least one time prior to this recurrence. No local irritants were noted that might be associated with this type of lesion. The lesion was excised, including periosteum, leaving a large area of denuded bone that was covered with ADM. Immunohistochemistry showed strong and diffuse staining for vimentin, alpha smooth muscle actin (SMA) and muscle specific actin (HHF-35), and no reactivity for CD34. Both SMA and HHF-35 stained the central portion of the lesion with the superficial and deep streaming up connective tissue being negative. The bulk of the specimen consisted of short, parallel and wavy bundles of dense collagen streaming up from the deep resection margin and fanning out into a mushroom-shaped lesion. In conclusion, using ADM improved post-op pain management, facilitated healing of the denuded bone, and resulted in an acceptable functional and esthetic re-growth of the gingiva. There was no evidence of recurrence of the lesion in the first fifteen months.

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