



Correspondence

Oral giant cell fibroma: A report of three cases

**KEYWORDS**

Giant cell fibroma;
Oral cavity;
Buccal mucosa

Oral giant cell fibroma (GCF) is a benign fibrous tumor characterized by the presence of stellate and multinucleated giant cells in the subepithelial fibrous connective tissue.^{1,2} This article presented three cases of oral GCF on the buccal mucosae of three male patients, respectively.

The first case of GCF was found on the left lower posterior buccal mucosa of a 40-year-old male patient. The lesion was a sessile and elevated fibrous mass measuring $0.3 \times 0.3 \times 0.3$ cm, which was present for several months. It was excised under local anesthesia and the clinical diagnosis of a fibroma. The second GCF case was a $0.2 \times 0.2 \times 0.1$ cm mass that was noticed on the right buccal mucosa for 3 months by a 38-year-old male patient. The tumor was removed by the oral surgeon under local anesthesia and the clinical impression of a fibroma. The third GCF case was a hyperkeratotic mass with a slightly papillary surface and measuring $0.1 \times 0.1 \times 0.1$ cm on the left lower posterior buccal mucosa of a 48-year-old male patient. It was also excised by the oral surgeon under local anesthesia and the clinical diagnosis of a papilloma. Microscopically, all the three fibrous tumors were composed mainly of dense and hyalinized coarse collagen bundles covered by hyperparakeratotic or hyperorthokeratotic stratified squamous epithelium with elongated and pointed rete ridges (Fig. 1A, B, C, D, E, and F).

There were mononuclear or binuclear stellate giant fibroblasts dispersed in the subepithelial fibrous connective tissues (Fig. 1B, D, and F). Trinuclear giant fibroblast was discovered only occasionally (Fig. 1F). All the three tumors showed the presence of specific stellate and multinucleated giant fibroblasts in the subepithelial fibrous connective tissues and thus were diagnosed as GCFs histopathologically.

Oral GCF is either a sessile or a pedunculated mass covered by a thin layer of parakeratinized or orthokeratinized stratified squamous epithelium. The most characteristic feature of GCF is the presence of stellate giant cells, usually with one or two nuclei. Multinucleated giant cells are seen occasionally.^{1,2} Immunohistochemical stains show that the giant cells are positive for vimentin and negative for cytokeratin, S-100 protein, neurofilament, and leukocyte common antigen, indicating these stellate giant cells in oral GCFs are of mesenchymal origin instead of epithelial, neurogenic, or hematogenous origin.^{2–5} Oral GCFs can occur at any age. The mean age of the 24 Taiwanese patients with GCF is 29 years and approximately 60% of the lesions occur in the first three decades with the highest incidence being in the third decade.¹ The oral GCFs in Taiwanese patients show no sex predilection.¹ However, our three oral GCFs occurred in three middle-aged men. The GCF lesions are usually less than one cm in greatest dimension and are found more commonly on the tongue and gingiva.¹ Although our three GCFs were also smaller than one cm in diameter, all our three GCFs were discovered on the buccal mucosa. Similar to the finding in the present study, the oral GCFs frequently have the provisional diagnosis of a fibroma or a papilloma.^{1,2} All oral GCFs can be treated by surgical excision without further recurrence.^{1,2}

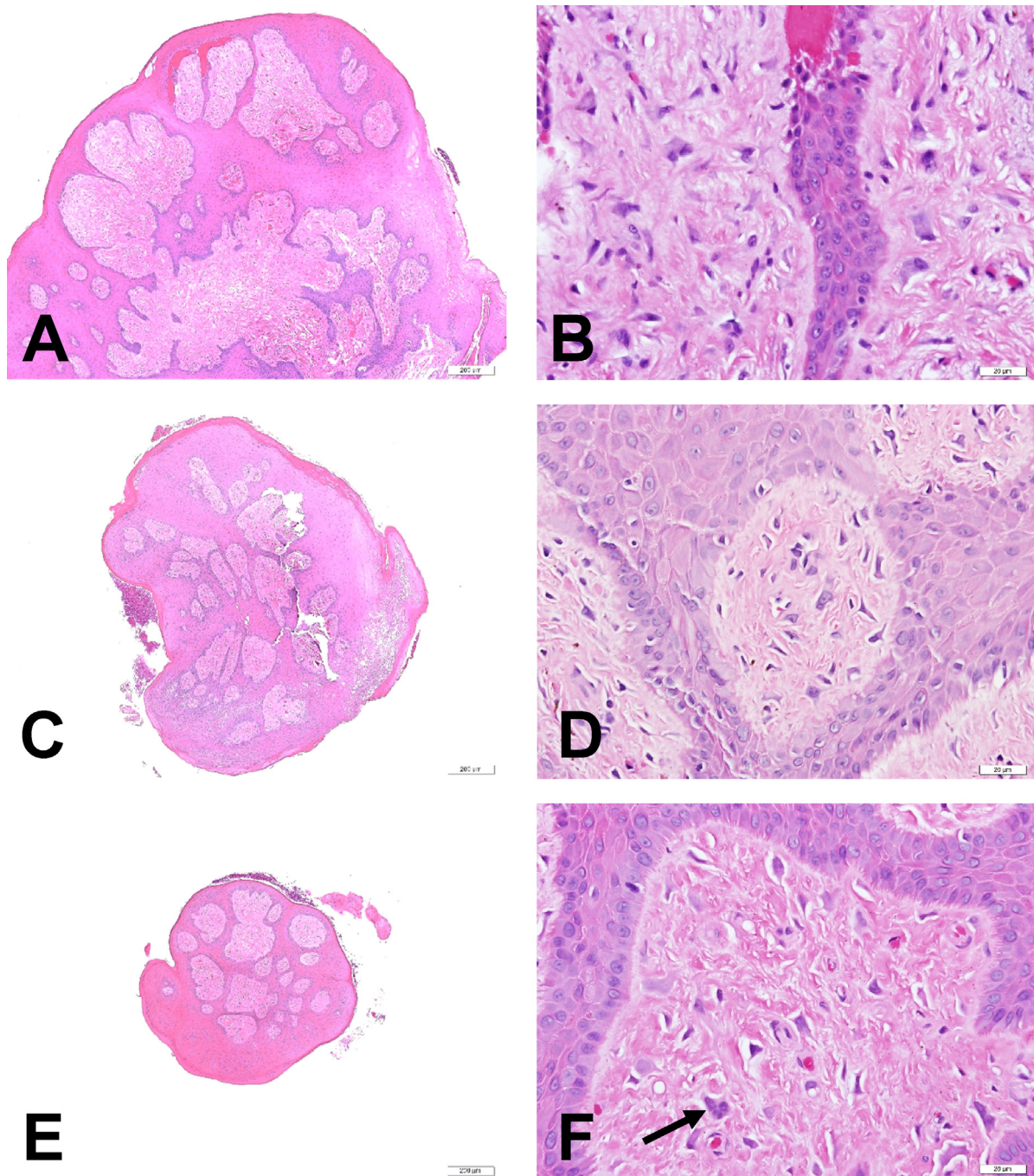


Figure 1 Histopathological microphotographs of our three cases of oral giant cell fibroma (GCF) on the buccal mucosae of three middle-aged male patients, respectively. (A and B) Low-power (A) and high-power (B) microphotographs of the first GCF case showing a fibrous mass covered by hyperparakeratotic stratified squamous epithelium with elongated and pointed rete ridges. There were mononuclear or binuclear stellate giant fibroblasts dispersed in the subepithelial fibrous connective tissues. (C and D) Low-power (C) and high-power (D) microphotographs of the second GCF case exhibiting similar histopathological features to the first GCF case except that the GCF was covered by hyperorthokeratotic stratified squamous epithelium. (E and F) Low-power (E) and high-power (F) microphotographs of the third GCF case demonstrating similar histopathological features to the second GCF case except that a trinuclear stellate giant fibroblast was discovered in the subepithelial fibrous connective tissue (pointed by the black arrow) (Hematoxylin and eosin stain; original magnification; A, C, and E, $4\times$; B, D, and F, $40\times$).

Declaration of Competing Interest

The authors have no conflicts of interest relevant to this article.

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Yi-Hsiu Kuo

Department of Dentistry, Hualien Tzu Chi Hospital,
Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan

Ming-Jay Hwang

Department of Dentistry, Hualien Tzu Chi Hospital,
Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan
Department of Dentistry, National Taiwan University
Hospital, College of Medicine, National Taiwan University,
Taipei, Taiwan

Yi-Pang Lee

Department of Dentistry, Hualien Tzu Chi Hospital,
Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan

Chun-Pin Chiang*

Department of Dentistry, Hualien Tzu Chi Hospital,
Buddhist Tzu Chi Medical Foundation, Hualien, Taiwan
Department of Dentistry, National Taiwan University
Hospital, College of Medicine, National Taiwan University,
Taipei, Taiwan
Graduate Institute of Oral Biology, School of Dentistry,
National Taiwan University, Taipei, Taiwan

*Corresponding author. Department of Dentistry, Hualien
Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation, No.
707, Section 3, Chung-Yang Road, Hualien, 970, Taiwan.
E-mail address: cpchiang@ntu.edu.tw (C.-P. Chiang)

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