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## Correspondence

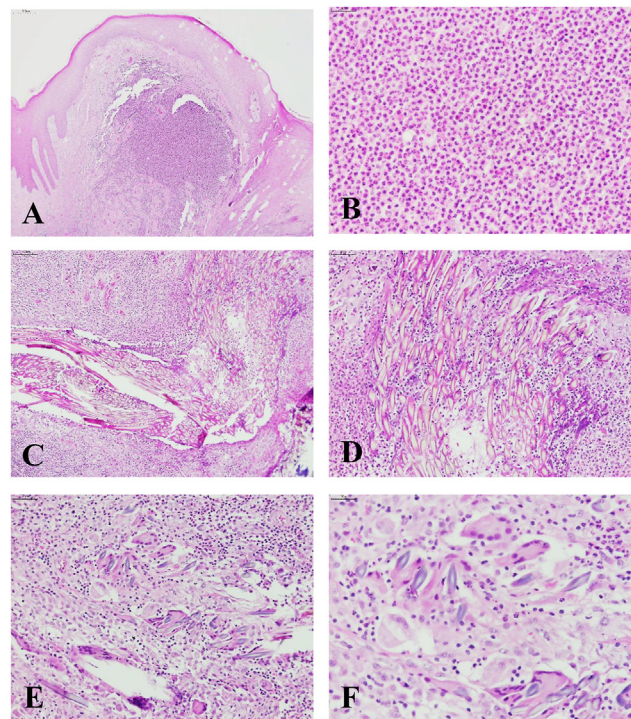
# Silk suture granuloma with abscess in the lower lip

## KEYWORDS

Abscess;  
Foreign body  
granuloma;  
Silk;  
Suture granuloma;  
Lower lip

The suture granuloma, a kind of foreign body granuloma, is caused by iatrogenic exogenous suture materials.<sup>1</sup> When the exogenous foreign materials get contaminated with deep fungi or bacteria, an abscess may develop in the previous surgical site.<sup>1</sup> Here, we reported a case of a silk suture granuloma with abscess in the right lower lip of an 18-year-old male patient who had an excision of the mucocele at the same site 6 weeks ago.

This 18-year-old male patient came to our oral mucosal disease clinic for treatment of a nodule measuring approximately 1.0 cm in greatest dimension at the right lower lip for one week. The nodular mass was soft and tender. The patient had a mucocele at the same location which was excised 6 weeks ago. One suture was used to close the surgical wound but the suture material was lost said by the patient at the one-week post-operation follow-up. The patient was uneventful till one week ago, and then a nodule was gradually formed at the previous surgical site. Thus, the patient came to visit us for further management. The clinical diagnosis of the lesion was a recurrent mucocele according to the history of treatment of a mucocele at the same site. After discussing with the patient and obtaining the signed informed consent, the nodular lesion was totally excised under local anesthesia. The removed soft tissue specimen was sent for histopathological examination. Microscopically, it showed an abscess in the lamina propria of the lower labial mucosa (Fig. 1A). The abscess was composed mainly of polymorphonuclear leukocytes



**Figure 1** Histopathological photomicrographs of our case of the silk suture granuloma with abscess. (A) A low-power photomicrograph showing an abscess in the lamina propria of the lower labial mucosa. (B) A high-power photomicrograph revealed that the abscess was composed mainly of polymorphonuclear leukocytes. (C and D) The high-power photomicrographs demonstrating the retained silk suture materials that were embedded in the submucosa and surrounded by the granulation tissues with both acute and chronic inflammatory cell infiltrates. (E and F) The high-power photomicrographs exhibiting the ingestion of the fibrils of silk suture material by multinucleated foreign body giant cells in the connective tissues near the retained silk suture materials in the submucosa. (Hematoxylin and eosin stain; original magnification; A, 4×; B, D and F, 40×; C and E, 20×).

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(Fig. 1B). The retained silk suture materials were found to be embedded in the submucosa and surrounded by the granulation tissues with both acute and chronic inflammatory cell infiltrates (Fig. 1C and D). In the connective tissues near the retained silk suture materials in the submucosa, ingestion of the fibrils of silk suture material by multinucleated foreign body giant cells was discovered (Fig. 1E and F). The above-mentioned characteristic findings finally confirmed the histopathological diagnosis of a silk suture granuloma with abscess. The nodular lesion did not recur 6 months after the surgical excision.

The foreign body granuloma is granulomatous inflammatory changes induced by the presence of foreign/exogenous materials.<sup>1</sup> It can be traumatic or iatrogenic. The commonly encountered foreign bodies due to trauma are glass, metal, and wood. The iatrogenic exogenous materials may include dental materials, retained sutures, and cosmetic filler substances, such as hyaluronic acid and silicon.<sup>1–4</sup> In our case, the submucosal embedded suture materials were identified as the silk suture materials after checking with the atlas of foreign materials provided by the American Academy of Oral and Maxillofacial Pathology.<sup>5</sup> The embedded suture materials may be extruded out of the mucosal surface through the severe inflammation-induced tissue tunnel and then the lesion heals. In addition, they may be infected by the deep fungi or bacteria and finally the pus cells accumulate in the lamina propria and forming an abscess like the nodular lesion found in this case.<sup>1</sup> In such situation, total excision of the nodular lesion with removal of the embedded suture materials combined with the subsequent antimicrobial therapy often result in a complete healing of the lesion.<sup>1</sup> To the best of our knowledge, the silk suture granuloma with abscess after the excision of the mucocele is not discovered in the English literature, and this is the reason why we report this rare case.

## Declaration of competing interest

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

## Acknowledgments

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