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Traumatic ulcerative granuloma with stromal eosinophilia at the lateral border of the tongue

KEYWORDS
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Traumatic ulcerative granuloma with stromal eosinophilia (TUGSE) is a rare benign ulcerative lesion on the oral mucosa.[1—3] It frequently presents an unhealed oral ulcer, mimicking an oral malignancy. Here, we reported a TUGSE lesion at the right lateral border of the tongue in a 56-year-old male patient.

This 56-year-old male patient came to our oral mucosal clinic for treatment of an ulcer at the right lateral border of the tongue. The ulcerative lesion persisted for more than 1.5 months. Intraoral examination revealed a slightly indurated ulcerative lesion with tenderness when palpated. A decayed right mandibular first molar with a sharp fractured tooth crown edge against the lateral tongue ulcer was found. The sharp fractured tooth crown edge was removed by the high-speed handpiece with a round bur and steroid ointment was prescribed to the patient for topical application. However, the lateral tongue ulcer did not heal in the follow-up visit one week later. Because of the suspicion of an oral malignancy, the total excision of the chronic ulcer was suggested. After discussing with the patient and obtaining the signed informed consent, the tongue ulcerative lesion was completely removed under local anesthesia. The excised soft tissue specimen was sent for histopathological examination. Microscopically, the tongue lesion was covered by the hyperplastic stratified squamous epithelium with focal surface ulceration and a severe inflammatory cell infiltrate in the fibrous connective tissue stroma and the muscle layer (Fig. 1A and B). The medium- and high-power views showed a severe lymphoplasma cell and eosinophil infiltrate in the fibrous connective tissue stroma (Fig. 1C and D) as well as among the muscle fibers of the tongue (Fig. 1E, F, G and H). The above-mentioned characteristic microscopic features finally confirmed the histopathological diagnosis of a TUGSE lesion at the right lateral border of the tongue.[1—3]

There are several oral benign ulcerative lesions that can mimic malignancies.[1—5] The TUGSE lesion is one of these lesions.[1—3] The specific features that make the TUGSE lesion looking like a malignant oral lesion include an unhealed oral ulcer of more than 1.5 -month duration and the slightly indurated texture of the lesion when palpated. The unhealed oral ulcer is often due to repeated traumatic injuries. The indurated texture of the lesion may result from the reactive fibrosis and an infiltration of different types of cells including fibroblasts, lymphocytes, plasma cells, and eosinophils.[1—3] The necrotizing sialometaplasia is also an ulcerative lesion that mimics a malignant oral lesion, both clinically and microscopically. It occurs most commonly at the posterior hard palate presenting as an unhealed ulcer. The necrotizing sialometaplasia is usually caused by ischemia of the salivary gland tissue that leads to local infarction and subsequent formation of an ulcer. The potential predisposing factors resulting in ischemia of the salivary gland tissue may include traumatic injuries, dental injections, adjacent tumors, and previous surgery.[4] Microscopically, the necrotizing sialometaplasia is characterized

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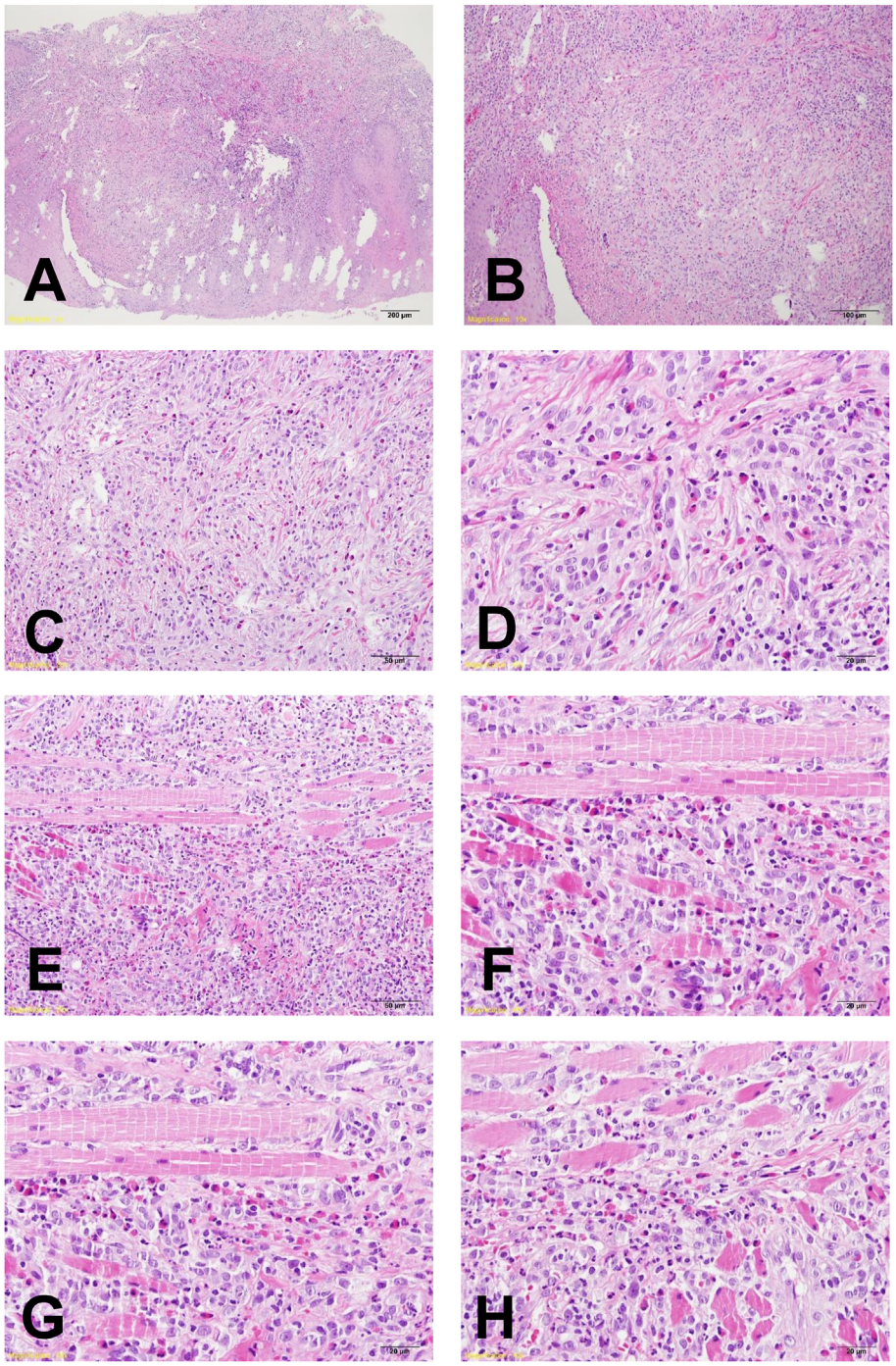

Figure 1 Histopathological photomicrographs of our case of the traumatic ulcerative granuloma with stromal eosinophilia. (A and B) Low- and medium-power photomicrographs exhibiting a tongue lesion covered by the hyperplastic stratified squamous epithelium with focal surface ulceration and a severe inflammatory cell infiltrate in the fibrous connective tissue stroma and the muscle layer. (C and D) High-power photomicrographs demonstrating a severe lymphoplasma cell and eosinophil infiltrate in the fibrous connective tissue stroma. (E, F, G and H) High-power photomicrographs showing a severe lymphoplasma cell and eosinophil infiltrate among the muscle fibers of the tongue. (Hematoxylin and eosin stain; original magnification, A, 4×; B, 10×; C and E, 20×; D, F, G and H, 40×).

by acinar necrosis and squamous metaplasia of the excretory salivary ducts, which may be misdiagnosed as a squamous cell carcinoma or a mucoepidermoid carcinoma.[4] Other long-term unhealed oral ulcers may be caused by the destructive mechanisms induced by different autoimmune diseases such as erosive oral lichen planus, systemic lupus erythematosus, pemphigus vulgaris, and cicatricial pemphigoid.[5]

For treatment of a TUGSE lesion, if the irritating factor can be identified, the removal of this traumatic cause is absolutely necessary. The use of topical corticosteroids to reduce inflammation may be helpful for the healing of the TUGSE lesion. In most cases, the TUGSE lesion resolves spontaneously after incisional biopsy.[1—3]

Declaration of competing interest

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

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