

Necrotizing Sialometaplasia of the Palate Mimics Intraoral Malignancy

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Abstract

Background : Necrotizing sialometaplasia is an uncommon and locally destructive benign lesion, the inflammatory necrotizing process of which can involve the minor and major salivary glands. It is predominantly found in the posterior hard palatal mucosa.

Methods: We present on a heavy smoker man having poorly controlled diabetes mellitus. He experienced bilateral painful ulcerative lesions at the junction of the hard and soft palates for 10 days, biopsy and local debridement of the lesions were performed.

Results: Histopathological features confirmed the diagnosis of necrotizing sialometaplasia. The ulcers healed within 5 weeks of oral antibiotic treatment.

Conclusions: The clinical similarity between necrotizing sialometaplasia and malignant lesions may result in inaccurate diagnosis and lead to use of unnecessary and mutilating approaches.

Key Words: Acini; Coagulative necrosis; Crater-like ulcers; Conservative treatment; Gland tissue ischemia; Necrotizing sialometaplasia; Pseudoepitheliomatous changes;;

INTRODUCTION

Necrotizing sialometaplasia was first described in 1973 and is predominantly found in the posterior hard palatal mucosa (1). Clinical features are variable, swelling to crater-like lesions may be found in different stage. Symptoms depend on the severity of destruction and vary from painful to no symptoms. Ischemia in the salivary glands is thought to trigger the process that eventually resulting in necrosis. The disease is usually self-limited without need for intensive treatment.

CASE REPORT

A 48-year-old man experienced bilateral painful ulcerative lesions at the junction of the hard and soft palates, adjacent to the midline, for 10 days before presentation at our department. He is a heavy smoker and has poorly controlled diabetes mellitus. We observed 2 crater-like ulcers with irregular, raised, and soft borders, erythematous margins, and a necrotic center (Figure 1A). Nasopharyngoscopy revealed that the mucosa of the nasal cavity and pharynx were intact. Computed tomography scan showed a mottled gas beneath the hard palate. Therefore, incisional biopsy and local debridement of the lesions were performed.

Histopathological findings revealed a thickened squamous epithelium with focal hyperkeratosis, acanthosis, and moderate inflammatory cell infiltration of the stroma. In addition, extensive coagulative necrosis was observed with mixed inflammation of the salivary acinis (Figures 2B and 2C). Some residual acinar and ductal elements preserved their architec-

ture; however, squamous metaplasia with pseudoepitheliomatous changes was observed in some areas (Figure 2D). The aforementioned features confirmed the diagnosis of necrotizing sialometaplasia. The ulcers healed within 5 weeks of oral antibiotic treatment.

DISCUSSION

Necrotizing sialometaplasia is an uncommon and locally destructive benign lesion, the inflammatory necrotizing process of which can involve the minor and major salivary glands. It is predominantly found in the posterior hard palatal mucosa, with two-thirds of cases being unilateral lesions. Gland tissue ischemia with subsequent necrosis was previously proposed, and its etiologies may include trauma, smoking, alcohol, and diabetes (2).

The histological characteristics are coagulative necrosis of the acini in the early stage and squamous metaplasia and reactive fibrosis in late stage (3). Five stages can be assumed in its pathogenesis: infarction, sequestration, ulceration, reparation, and healing, which may occur simultaneously in different areas (4). The lesions mainly manifest as deep crater-like ulcers with indurate and well-defined edges; however, differential diagnosis should be performed to rule out other malignant diseases. Generally, necrotizing sialometaplasia preserves the lobular architecture of the salivary glands, and squamous me-

taplasia of the ducts and acini with cells exhibit uniform nuclei without cellular atypia. Residual lumina are present in some metaplastic nests. The aforementioned features can help distinguish necrotizing sialometaplasia from other malignant diseases (5). Necrotizing sialometaplasia is treated with second-intention healing within a few weeks (3, 4); conservative treatment is adequate, and analgesics are administered for pain relief.

The clinical similarity between necrotizing sialometaplasia and malignant lesions results in the risk of unnecessary treatment. The present case illustrates the requirement of incisional biopsy analysis performed by experienced pathologists to establish an accurate diagnosis because a failure in differentiating between the benign and malignant lesions may result in the use of unnecessary and mutilating approaches.

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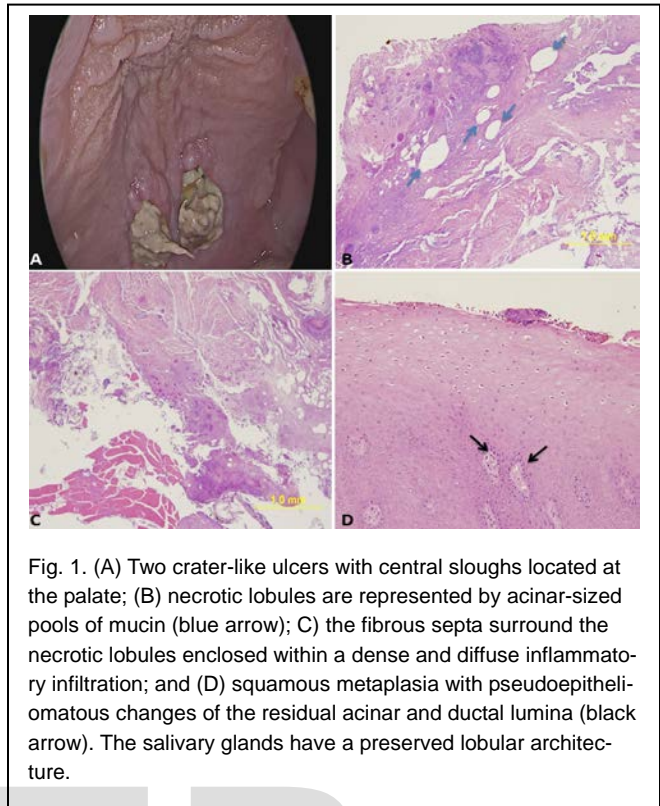


Fig. 1. (A) Two crater-like ulcers with central sloughs located at the palate; (B) necrotic lobules are represented by acinar-sized pools of mucin (blue arrow); (C) the fibrous septa surround the necrotic lobules enclosed within a dense and diffuse inflammatory infiltration; and (D) squamous metaplasia with pseudoepitheliomatous changes of the residual acinar and ductal lumina (black arrow). The salivary glands have a preserved lobular architecture.

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