



DEPARTMENT OF PATHOLOGY

Case of the Week

Oral Pathology: Necrotizing Sialometaplasia

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History

A 62 year-old man with a 20 pack-year history of cigarette smoking, past medical history of diabetes and recent oral trauma presents with a non-healing ulcer of the hard-soft palate junction present for approximately 1 month.

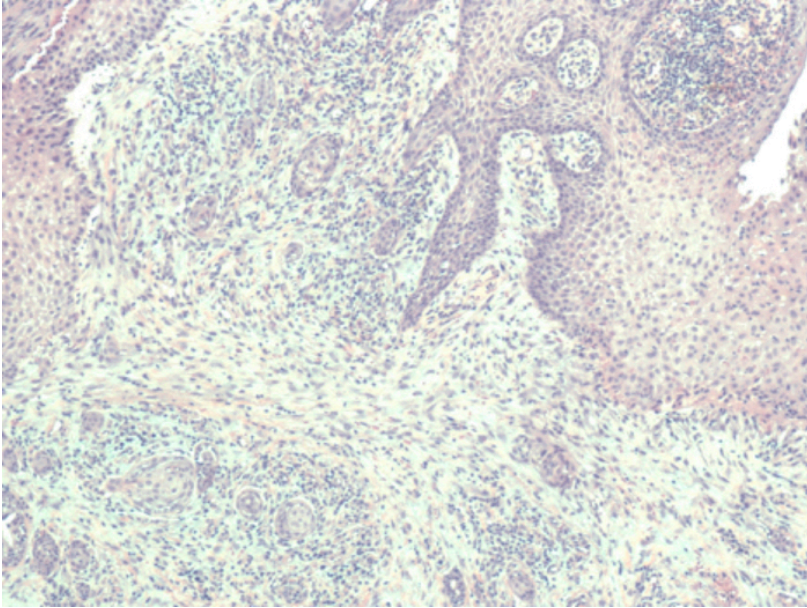


Fig 1. Squamous mucosa with submucosal squamous islands suggestive of invasive carcinoma, H&E stain, 40x.

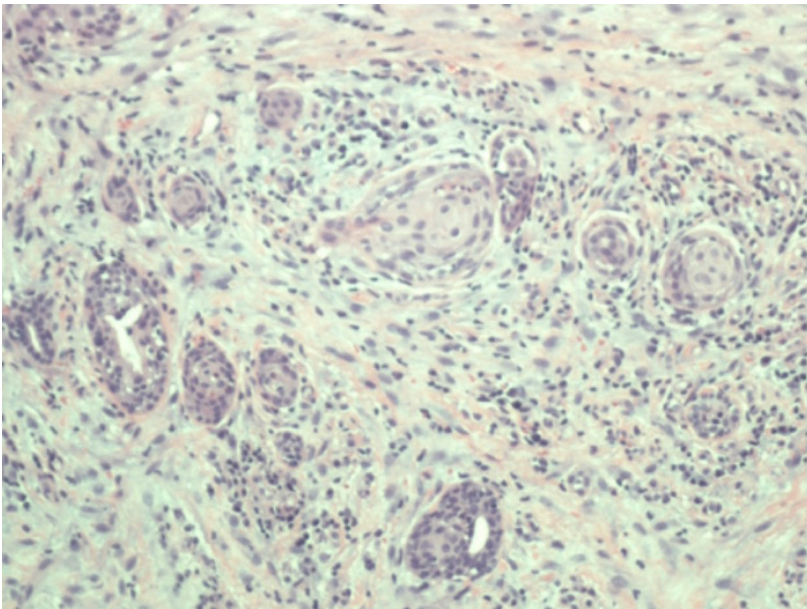


Fig 2. Ducts with squamous metaplasia, H&E stain, 400x.

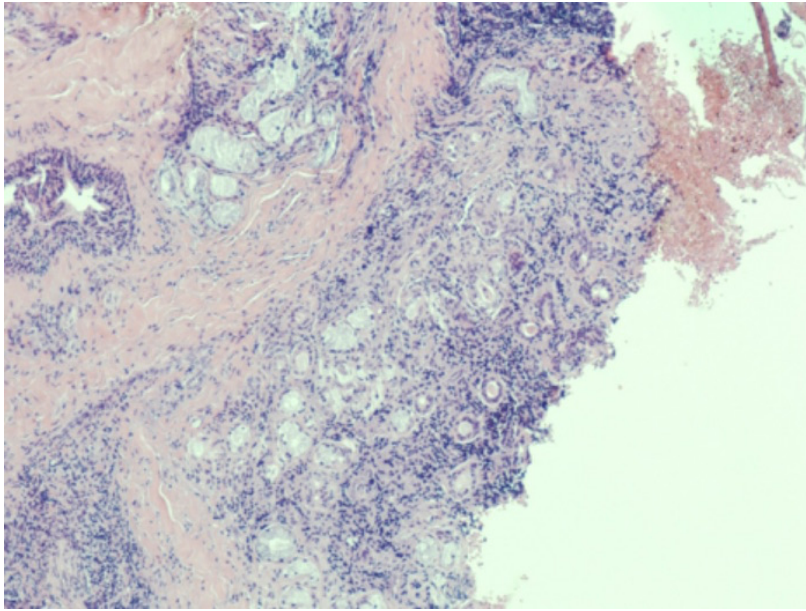


Fig 3. Salivary acinar tissue with focal necrosis: H&E stain, 100x.

Diagnosis

Necrotizing sialometaplasia

Discussion

Sections show squamous mucosa with pseudoepitheliomatous hyperplasia. The mucosa contains a subepithelial lesion comprised of ducts and acini with squamous metaplastic change, occurring in a background of minor salivary gland tissue with chronic inflammation, fibrosis, and focal necrosis. All metaplastic duct islands show benign cytology and maintain a lobular configuration. The differential diagnosis for this lesion includes squamous cell carcinoma, salivary gland tumor, aphthous ulcer and herpetic ulcer and other ulcerative lesions.

Necrotizing sialometaplasia is a benign ulcerative lesion that usually occurs at the posterior hard palate in the setting of trauma induced ischemic necrosis (hypoxic injury) of minor salivary glands.¹ A variety of contributing factors have been identified in the literature, including cigarette smoking, bulimia and dentures.^{2,3} This lesion can be seen in any area of the upper aerodigestive tract and bears both clinical and histologic resemblance to malignancy. Of note, involvement of parotid glands has been reported in 8.5% of cases. There is a male predominance (2:1) with a wide reported age range (1.5 to 83 years, average 46 years).⁴ Necrotizing sialometaplasia is a relatively uncommon and usually self-limiting lesion, typically healing within 6 - 10 weeks. There is no specific treatment strategy for this entity; however, surgical debridement and palatal guards have been recommended for large lesions.

References

1. Allon I, Kaplan I, Allon DM, Vered H, Shlomi B, Hirshberg A. HIF-1 α , VEGF, and EGFR: contributing factors in the pathogenesis of necrotizing sialometaplasia. *Oral diseases*. 20(5):440-5. 2014. PMID: 23837804.
2. Gilowski Ł, Wiench R, Polakiewicz-Gilowska A, Dwornicka K. Necrotizing sialometaplasia of the palatal mucosa in patient with history of anorexia: review and case report. *American journal of otolaryngology*. 35(3):400-1. 2014. PMID: 24667056.
3. Kaplan I, Alterman M, Kleinman S. The clinical, histologic, and treatment spectrum in necrotizing sialometaplasia. *Oral surgery, oral medicine, oral pathology and oral radiology*. 114(5):577-85. 2012. PMID: 22921832.
4. Richardson MS. Chapter 10: Non-neoplastic lesions of the salivary glands. In: *Head and Neck Pathology*. Saunders; 2013: 228-243. Accessed online December 1, 2015.