



NECROTIZING SIALOMETAPLASIA OF PALATE A RARE CASE REPORT

Dr.G.N.Byra Reddy

Professor, Department of ENT, PESIMSR, Kuppam.A.P

Dr. Vusiripati Maheswari*

PG Resident, Department of ENT, PESIMSR, Kuppam,A.P*Corresponding Author

Dr. Durga Dilip Babu

Assistant Professor , Department of ENT, PESIMSR, Kuppam,A.P

ABSTRACT Necrotizing sialometaplasia (NS) is a rare benign reactive necrotizing inflammatory process that affects the minor salivary gland and frequently mimics cancer on both a clinical and histopathological level. Case Study : We report the case of a 21-year-old healthy man who had throat pain and non-healing ulcer over soft palate for the past one month, with pain during swallowing. Histopathological analysis and an incisional biopsy were performed on the patient. Necrotizing sialometaplasia was the histologically determined diagnosis. Necrotizing sialometaplasia is a self-limiting disorder of salivary glands mostly affecting the hard palate. The duration of the healing process is usually related to the size of the lesion. The recurrence rate of Necrotizing Sialometaplasia is low. Even a full thickness palatal lesion heals completely within 6 months.

KEYWORDS : Necrotizing sialometaplasia, oral ulcers, minor salivary glands, palate, biopsy

Introduction:

Necrotizing sialometaplasia (NS) was first described by Abrams and Melrose in 1973. Necrotizing Sialometaplasia (NSM) is a benign, self healing lesion of salivary glands which can arise in any area containing salivary glands. It mainly involves the mucoserous glands of the hard palate, but other reported sites include nasal cavity, trachea, parotid gland, sublingual gland, submandibular gland, larynx, buccal mucosa, maxillary sinus, tongue, tonsil and retromolar trigone². Local anaesthesia, ill fitting dentures, history of recent tooth extraction, cocaine use, surgical procedures combined with radiation therapy and upper respiratory tract infections are documented as the precipitating factors⁵ Here we report a case of a 21 year-old male patient corresponding to the clinical and histopathological features of Necrotizing sialometaplasia.

Case Report:

A 21 year old male presented to the ENT outpatient Department of P.E.S Institute of Medical Sciences and Research Centre, Kuppam came with complaints of throat pain and non-healing ulcer over soft palate for the past one month, with pain during swallowing. There was no history of trauma, paresthesia or fever. The past medical history revealed no systemic illness. The personal history revealed that the patient was vegetarian in diet. Patient also gave H/O usage of gutkha and tobacco chewing since 4 years.

On clinical examination An ulcerative lesion involving soft palate about 6*5 cm extending from bilateral anterior pillars, base of uvula and posterior half of the hard palate with slough over the lesion. Left submandibular lymph node was enlarged measuring about 3*2 cm and was not mobile, non-tender. The patient was subjected to a complete hemogram, which revealed normal values except a raised erythrocyte sedimentation rate (ESR), which was 22 mm/hour. A culture test was advised, to rule out fungal infection, which gave a negative result for fungal growth. Under local anesthesia, a punch biopsy was performed and the specimen was sent for histopathological examination. Biopsy Showed pseudo-epitheliomatous hyperplasia, with elongated rete ridges deep into subepithelial tissue. Subepithelial minor salivary gland tissue showed extensive squamous metaplasia and stroma was composed of mixed inflammatory cells. Infiltrate predominantly comprising of neutrophils along with lymphocytes, occasional eosinophils and plasma cells. A diagnosis of Necrotizing sialometaplasia was made Patient was advised complete abstinence from tobacco chewing, treated symptomatically and the lesion underwent spontaneous healing within 2-3 months with secondary intention. The patient had an uneventful recovery, after which he came for a follow up after 3 months and the lesion had regressed completely.

Fig 1: The clinical photograph shows a ulcerative lesion in soft palate,



Fig 2: Biopsy Showed pseudo-epitheliomatous hyperplasia, with elongated rete ridges deep into subepithelial tissue. Subepithelial minor salivary gland tissue showed extensive squamous metaplasia and stroma was composed of mixed inflammatory cells. Infiltrate predominantly comprising of neutrophils along with lymphocytes, occasional eosinophils and plasma cells

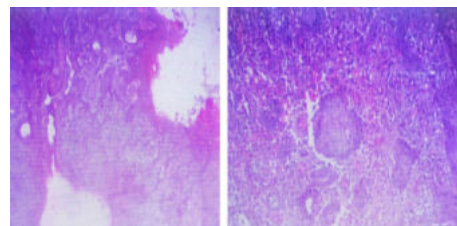


Figure 3: After three months the lesion regressed.



Discussion

Necrotizing sialometaplasia is a self-limiting, variably ulcerated, benign process affecting the minor salivary glands.³ While the precise cause of NS is still unknown, it is thought that the lesion is caused by a physical, chemical, or biological injury to the blood vessels that would cause ischemic changes, infarction of the salivary gland acini with posterior necrosis, inflammation, and a desire to heal, inducing metaplasia, changes in ducts, and further cicatrization.⁴ Local ischemia is typically caused by a local trauma, such as those caused by intubation, local anaesthesia, surgical procedures, use of unsuitable

dental prostheses, violent or induced vomiting, such as in bulimic patients, infectious processes, radiotherapy, and use of tobacco or cocaine due to its constrictor effect.⁵ Taking the causes reported into consideration the patient reported use of tobacco and Gutkha since 4 yrs.

The junction of the hard and soft palates is the main site of intraoral NSM, which initially manifests as a tender swelling. The oral mucosa then separates, creating a deep ulcer with a lobular base that is yellowish grey in colour. In general, symptoms pale in comparison to the size of the lesion. The majority of patients express only minor complaints of tenderness or dull pain.⁶ In our case the patient reported throat pain and non-healing ulcer over soft palate.

Necrotizing sialometaplasia shows a male predilection, with a male-to-female ratio of 2:1. And the lesion can occur in any age group.⁷ The patient in our case was a 21-year-old male.

Five histologic phases can be used to categorise NS: infarction, sequestration, ulceration, the reparative phase, and the healed phase. Imbery and Edwards also claim that squamous metaplasia of the salivary ducts and Early lesions show coagulation necrosis of the acini, and during the advanced stage of NS, reactive fibrosis. During infarction, the glandular acini undergo necrosis, resulting in the formation of an ulcer. As the lesion heals there is proliferation of the overlying epithelium, which is seen microscopically as pseudoepitheliomatous hyperplasia. As healing takes place, there is phagocytic activity of the histiocytes and neutrophils, and appearance of granulation tissue.⁸

The histopathological characteristics that aid in the diagnosis the most are the ulcerated mucosa, pseudoepitheliomatous hyperplasia of epithelium, acinar necrosis, squamous metaplasia, preservation of lobular architecture, mucin pooling, and formation of granulation tissue. On the basis of the histopathological findings, the present case appeared to be in the ulcerative stage at the time the patient reported to us.

The prognosis for necrotizing sialometaplasia is excellent. The management of Necrotizing sialometaplasia includes symptomatic treatment and the lesions undergo spontaneous healing within two to three months.⁹ Surgical excision is not necessary. The recurrence rate of Necrotizing sialometaplasia is low. There was no untoward complication reported in our case also and after which he came for a follow up after 3 months and the lesion had regressed completely.

Conclusion:

Histopathological analysis is required to confirm the diagnosis of necrotizing sialometaplasia because its clinical appearance can resemble those of other illnesses, particularly malignant neoplasms. The stage of the lesion can also be inferred from the histopathological results

REFERENCES:

1. Uppal N, Baliga M. Necrotizing sialometaplasia: A rare lesion that mimics oral cancer clinically and histopathologically. *Otolaryngol Pol.* 2014;68(3):154-56.
2. Alves MGO, Kitakawa D, Carvalho YR, Cabral LAG, Almeida JD. Necrotizing sialometaplasia as a cause of non-ulcerated nodule in the hard palate: a case report. *Journal of Medical Case Reports.* 2011;5(1):406.
3. A. M. Abrams, R. J. Melrose, and F. V. Howell, "Necrotizing sialometaplasia. A disease simulating malignancy," *Cancer*, vol. 32, no. 1, pp. 130–135, 1973.
4. R. B. Brannon, C. B. Fowler, and K. S. Hartman, "Necrotizing sialometaplasia. A clinicopathologic study of sixty-nine cases and review of the literature," *Oral Surgery, Oral Medicine, Oral Pathology*, vol. 72, no. 3, pp. 317–325, 1991.
5. F. Libero Femopase, S. L. Hernandez, H. Gendelman, M. I. Criscuolo, and S. A. Lopez De Blanc, "Necrotizing sialometaplasia: report of five cases," *Medicina Oral*, vol. 9, no. 4, pp. 304–308, 2004.
6. Daudia A, Murty GE. First case of full-thickness palatal necrotizing sialometaplasia. *J Laryngol Otol.* 2002;116:219–20
7. Oliveira Alves MG, Kitakawa D, Carvalho YR, Guimarães Cabral LA, Almeida JD. Necrotizing sialometaplasia as a cause of a non-ulcerated nodule in the hard palate: a case report. *J Med Case Rep.* 2011 Aug 23;5:406. doi: 10.1186/1752-1947-5-406. PMID: 21861916; PMCID: PMC3177922.
8. Anneroth G, Hansen LS. Necrotizing sialometaplasia. The relationship of its pathogenesis to its clinical characteristics. *Int J Oral Surg.* 1982;11(5):283-91.
9. Lee DJ, Ahn HK, Koh ES, Rho YS, Chu HR. Necrotizing sialometaplasia accompanied by adenoid cystic carcinoma on the soft palate. *Clin Exp Otorhinolaryngol.* 2009;2:48–51. doi: 10.3342/ceo.2009.2.1.48