

Surgical Management of Necrotizing Sialometaplasia of Hard Palate: A Case Report

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Abstract: Necrotizing Sialometaplasia is rare and in the oral cavity it accounts <1% of all biopsied lesion. For decades Necrotizing Sialometaplasia were treated by conservative management as it is a self healing lesion. The progressive healing period was reported from 2 weeks to 3 months in the literature. Is necrotizing sialometaplasia a self-limiting disease? Here we report a case of non-healing necrotizing sialometaplasia which was treated by surgical management. Complete regression of the lesion was evident after the surgical management and no recurrence until two years of follow-up.

Keywords: Necrotizing Sialometaplasia, palate, self-limiting disease

INTRODUCTION

Necrotizing Sialometaplasia (NS) is rare and in the oral cavity it accounts <1% of all biopsied lesion [1]. 80% of NSM involves minor salivary glands of palate. Other sites of involvement are floor of mouth, trachea, tongue, nasal cavity, retromolar, maxillary sinus, tonsil, larynx and major salivary glands [2].

The etiopathogenesis of NS is unclear, however, it is suggested that vascular insufficiency to the salivary gland lobule is the major cause. Apart from ischemia other etiologies were related to infections, physical and chemical trauma. Physical trauma includes local anesthetic injections, dental appliances, intubation, previous surgeries and direct forceful traumatic injuries. Chemical trauma resulting from tobacco, bulimia, alcohol and other gastro-esophageal reflex were the other possibilities. In the infectious etiology respiratory tract infections and viral etiology have been reported [3].

The known statement "NS is a self healing or self limiting lesion." For decades conservative management with symptomatic treatment such as topical corticosteroids, non-steroidal anti-inflammatory drugs were the treatment of choice as a less invasive procedure for NS [4,5]. In the literature the progressive healing period is reported from 2 weeks to 3 months [6]. Is necrotizing sialometaplasia a self-limiting disease? Here we report a case of non-healing necrotizing sialometaplasia which was treated by surgical management.

CASE REPORT

A 52 years old male patient presented with a complaint of pain and ulcer over the right hard palate for past one month. No associated findings with regard to previous medical and surgical history. Patient's dental history revealed extraction of tooth (14 and 15) at outside hospital before one month. Patient consulted same dentist one week after extraction for an erythema which developed in the area of palatal anesthetic injection. Patient was advised antibiotics for the same but no improvement in the symptom. After 3 weeks patient noticed an ulcer which was slowly increasing to attain the size of 0.3 x 0.3cm and patient reported to our institution [Figure 1]. Examination revealed no enlargement of lymph node. Salivary flow from major salivary gland ducts was normal thus no evidence of clinical obstruction. OPG and IOPA revealed no evidence of radiolucency, no bone loss and no other foci of infection. Patient was started on intra lesional injection of triamcinolone 10 mg, once in a two weeks which was continued for three weeks. Erythema in the surrounding mucosa was resolving but no signs of healing in the ulcer. Two weeks after the supportive treatment when the patient was called for review, it appeared as a crater-like ulceration of size 1.5 x 1.5 cm, oval in shape with the exposure of necrotic tissue at the center, well defined borders, no bleeding and no exposure of bone [Figure 2]. CT scan was done which revealed no bony erosion or maxillary sinus opacification. Patient was admitted and surgical excision was done under General Anesthesia.

Palatal plate was given post-operatively. Complete regression of the lesion is evident 1 month after the excision [Figure 3]. No recurrence until two years of follow-up.

DISCUSSION

Necrotizing sialometaplasia was first delineated by Albert Abrams as a disease which stimulates malignancy in 1973 [7]. NS resembles Squamous Cell Carcinoma and Mucoepidermoid carcinoma therefore it should not be bemused as malignant condition. Histological similarity of these conditions is due to the presence of pseudo-epitheliomatous hyperplastic epithelium [8]. The key discriminating features of NS from squamous cell carcinoma are lobular architecture preservation, inflammatory infiltrate and lobular infraction. Presence of mucin pools, glandular lumina in metaplastic nest and bland squamous cell appearance are the other discriminating features [9]. The distinguishing feature of NS from Mucoepidermoid carcinoma is the absence of cystic space which is lined by mucous cells [10]. Proper diagnosis should be made with clinical history and histologic correlation to evade unnecessary aggressive surgical treatment.

NS is treated conservatively since few decades as it is a self limiting lesion and it heals spontaneously with or without supportive treatment [11], [12]. Healing period is reported from 4 to 10 weeks without specific treatment [13]. Sun Ah Shin et al [14] recommended conservative management for palatal NS in young adults to avoid aggressive surgery. Tanu Randhawa et al [15] reported NS of tongue and the report concluded that NS does not require specific treatment. Although NS was treated conservatively, few literatures reported surgical management [16].

In our case, the ulcer was not resolved even after three months. Clinical differential diagnosis as malignant ulcer was considered. Patient underwent surgical debridement under General Anesthesia. Histopathological diagnosis of NS was made. After 2 weeks of surgical management, healing of the lesion occurred eventually. The hypothesis behind this non-resolving NS for more than three months is unclear. This type of non-resolving NS should not be confused with malignant conditions.

In the literature to our knowledge this is the first case of non resolving NS which was treated surgically. Though rare, it is important to establish the etiological theories behind NS. Further clinical studies and etiopathological theories should be encouraged to avoid perplexity in diagnosis and management of Necrotizing Metaplasia.

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LIST OF FIGURES:

Figure 1: Intraoral picture of an ulcer three weeks after extraction measuring approximately 0.3x0.3cm



Figure 2: Clinical representation of ulcer at the end of 11th week exposing necrotic tissue in the center of crater-like ulceration on the right hard palate.



Figure 3: Complete regression of an ulcer at one year follow up



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