原文題目(出處):	Case report of necrotizing sialometaplasia. Med Oral Patol
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內文:

## I. Introduction

- 1. Necrotizing sialometaplasia (NS)-1973 by Abrams et al.:an inflammatory necrotizing reactive process affecting minor salivary glands of the hard palate.
- 2. Proposing histopathological criteria:
  - (1) Necrosis of acinary cells of seromucinous glands
  - (2) Squamous metaplasia of salivary ductal epithelial and acini
  - (3) Pseudoepitheliomatous hyperplasia of the epithelium lining the gland
  - (4) Mucous release
  - (5) Inflammatory response associated with granulation tissue in or around the glands
  - (6) Intact lobular architecture
- Modified by Brannon (1991)- necrosis of acini in early lesions and of squamous metaplasia and reactive fibrosis in later lesions.
- 4. Anneroth, Hansen and Imbery, Edwards described five histological stages of NS: infarction (necrosis), sequestration, ulceration, repair and healing.
- 5. NS is an uncommon, benign and self-limiting reactive inflammatory process involving minor and major salivary glands.
  - (1) All sites with salivary tissue .Most:hard palate (58%)
  - (2) Mainly a deep crateriform ulcer with indurated and well-defined edges. Less often, as a non-ulcerated mass
  - (3) Generally unilateral(12% bilateral)
  - (4) Bone involvement in only a few cases.
  - (5) Painful or asymptomatic, while some patients present with fever, malaise or paraesthesia/anaesthesia of the area .
  - (6) Most in Caucasian males aged between 40 and 50 years.
- 6. Etiology is uncertain, but an underlying cause appears to be gland tissue ischemia. Numerous risk factors including:
  - (1) Local trauma(e.g., surgery, poor-fitting prostheses)
  - (2) Fellatio or local pressure
  - (3) Alcohol, tobacco or cocaine use

- (4) Radiation
- (5) Respiratory infections or allergies
- (6) Previous adenoidectomy or surgery for other lesions (e.g., tumors, mucoceles)
- (7) Adjacent tumors or other lesions producing compression and ischemia
- (8) Bulimia and chronic vomiting
- (9) Diabetes
- (10) Drepanocytic anaemia,
- Local dental anaesthesia to the hard palate is thought to play a role in NS (1996, Shigematsu et al.)
- 8. Management of these lesions:
  - (1) An incisional biopsy and close follow-up
  - (2) Administering analgesics in cases of pain.
  - (3) Usually no recurrences or sequelae.
  - (4) NS lesions heal without treatment within 4-10 weeks
  - (5) The healing time is primarily related to the size of the lesions
- 9. The severity of the ulceration and tissue destruction over a short time period:
  - (1) Frequently misdiagnosed as mucoepidermoid carcinoma, squamous cell carcinoma
  - (2) Incisional biopsy is therefore essential to establish a correct diagnosis

## II. <u>Case Report</u>

- 1. A 21-year-old woman, smoker of 10 cigarettes/day,
  - (1) With a one-week history of bilateral palatal swellings that had developed into two deep ulcers after the first three days.
  - (2) The swellings had been painful and her temperature had risen to 38°C during the initial three-day period
  - (3) But both the pain and fever disappeared with the appearance of the ulcers.
- 2. Clinical examination
  - (1) Two deep ulcers (3x1 cm and 2x1 cm), one on either side of the midline of the hard palate (Fig. 1).
  - (2) The edges of the lesions were elevated but not indurated,
  - (3) The base was covered with necrotic debris.
  - (4) No pain, and no abnormities were observed in the rest of the oral cavity.
  - (5) Haematological and radiographic findings were normal.
- 3. An incisional biopsy of the peripheral margin was taken under local anaesthesia.
  - (1) Mucosa composed of parakeratotic, stratified squamous epithelium.
  - (2) Submucosa contained numerous degenerating mucus-producing salivary glands with mucus spillage.

- (3) Some areas showed extensive necrosis of glandular acini and squamous ductal metaplasia (Fig. 2).
- (4) The connective tissue was infiltrated by a mixed inflammatory infiltrate.
- 4. The ulcers resolved spontaneously without treatment over the following 8 weeks (Fig. 3).



Fig. 1. Palatal ulcers at presentation.



Fig. 3. Lesions resolved at 8 weeks from the onset.



**Fig. 2.** Necrosis of acini and acute inflammatory infiltrate (HE 200x).

## III. Discussion

- 1. D.D. of NS should consider other ulcerous and erosive lesions:
  - (1) Dental fissures,
  - (2) Major aphthae,
  - (3) Tuberculosis,
  - (4) Tertiary syphilis
  - (5) Deep fungal infection in patients with AIDS
  - (6) Under immunosuppressive treatment
  - (7) Cancerous origin, e.g., squamous cell carcinoma, mucoepidermoid carcinoma.

- 2. NS is differentiated from tuberculosis, syphilis and fungal ulcers by:
  - (1) Serologic tests
  - (2) Staining histopathological samples
- **3.** Histological criteria to distinguish NS from a malignancy are:
  - (1) Preserved general lobular morphology
  - (2) Bland appearance of squamous islands or nests with no cytological evidence of malignancy
  - (3) No findings of residual ductal lumina in any nest. .
- **4.** Rizkalla and Toner: Expression of calponin, smooth muscle actin and focal staining with cytokeratin 7 are characteristic of NS but not normally expressed in carcinomas.
- **5.** The possibility of a subacute necrotizing sialadenitis should also be taken into account. According to Fowler et al.:
  - (1) A non-specific acute inflammatory condition of unknown origin,
  - (2) Histologically characteristic:Focal acinar necrosis and atrophy of duct cells, without ductal metaplasia, pseudoepitheliomatous hyperplasia or fibrosis.
  - (3) Non-ulcerated erythematous nodular lesions on the palate accompanied by acute pain and has been reported in young people living in groups.
  - (4) Usually last for around two weeks and it has been suggested that the aetiology may be infectious (viral) or allergic.

題號	題目	
1	Numerous risk factors of necrotizing sialometaplasia excluding?	
	(A) Upper Respiratory Infections	
	(B) Ill-fittng dentures	
	(C) Previous sugery	
	(D) Virus infection	
答案(D)	出處: Oral & Maxillofacial Pathology second ED P.405	
題號	題目	
2	The microscopic appearance of necrotizing sialometaplasia is	
	characterized by ?	
	(A) Acinar necrosis	
	(B) Acinar metaplasia	
	(C) Ductal squamous necrosis	
	(D) Lobular architecture loss	
答案(A)	出處: Oral & Maxillofacial Pathology second ED P.406	