NABL Accredited
Certificate No. M-0798

Patient Name: MASTER RAHUL MANJEET **Lab No. :** B-280/18
Age/Sex: 13 years/ Male **Received Date:** 07/04/18
Lab No. 011804100070 **Reporting Date:** 09/04/18

Referred By: **DR. UMA SINGH,**
MD, DGO, FIMAAMS,
Vidya Vision, Haryana Pathology Consultancy Centre,
Rohtak.

BRIEF CASE HISTORY

Complaints Of: Patient complaints of a deep ulceration in the lower back cheek region since 15 days.

History of Present Illness: No history of burning sensation. No history of pain / bleeding / paresthesia. History of chronic repeated trauma for 2-3 years.

CLINICAL EXAMINATION:

Retromolar Triagone (Left): Presence of a solitary, crater-like, non-tender, painless deep ulcerative lesion with induration, irregular margins and shape, base with slough. On palpation, no swelling present. Size: 2.0 x 3.0 cms approx..

RADIOGRAPHIC EXAMINATION:

PA VIEW:

- Presence of a solitary, radiolucent lesion with well-defined radio-opaque border irt the unerupted 28. There is disturbed integrity of the follicle irt 28, however, the exact location / origin of the lesion is undetermined.
- Advised: Orthopantomogram.

ORTHOPANTOMOGRAM (OPG):

- Intact borders of the follicle irt unerupted (undeveloped crown) of 28 suggestive of Soft Tissue Origin of the Lesion.
- No osteolytic changes observed.
- Unerupted 23.

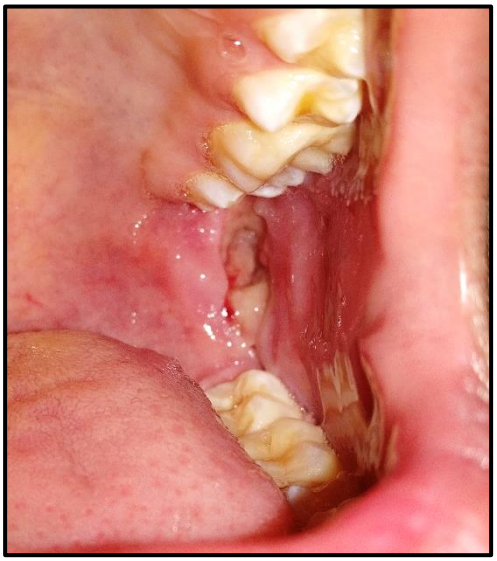
CLINICAL TENTATIVE DIAGNOSIS:

- **Ameloblastoma ?**

Treatment Rendered: Incisional Biopsy Was Planed Under LA. Tissue Sent For Histopathological Evaluation. Slides received for review.

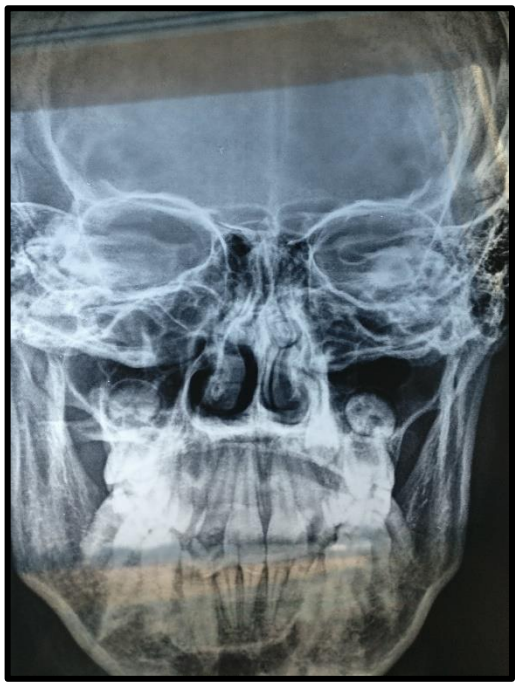
CLINICAL PROFILE

MASTER RAHUL MANJEET, 13 YEAR / MALE, ROHTAK, B-280 / 18.

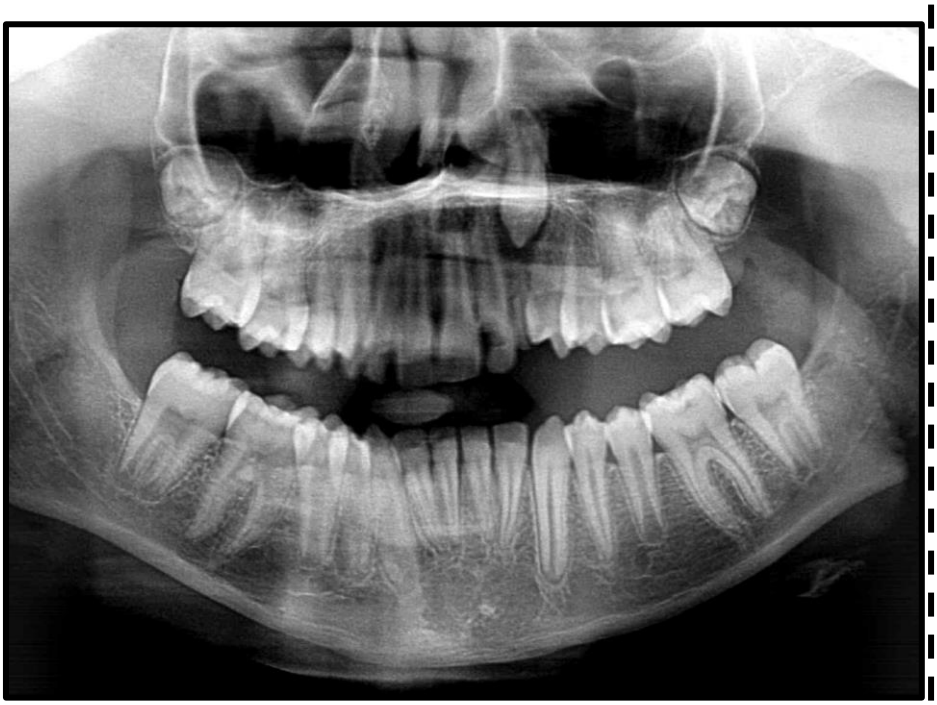


SITE OF BIOPSY:
All the surfaces from the ulcerative borders.

RADIOGRAPHIC DETAILS



PA VIEW



ORTHOPANTOMOGRAM

HISTOPATHOLOGICAL EVALUATION [B- 280 / 18]

The given haematoxylin and eosin stained slides reveals,

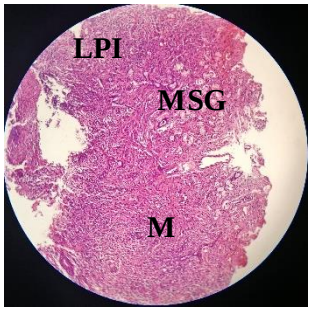


Fig. 1

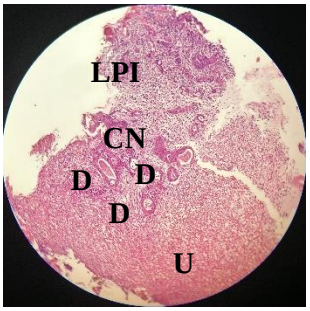


Fig. 2

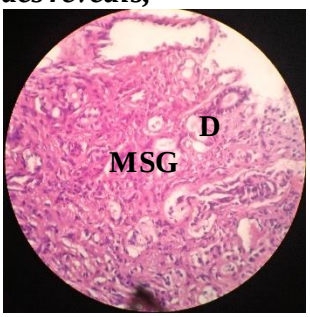


Fig. 3

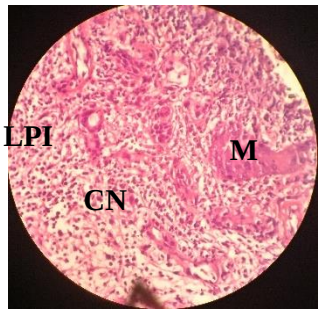


Fig. 4

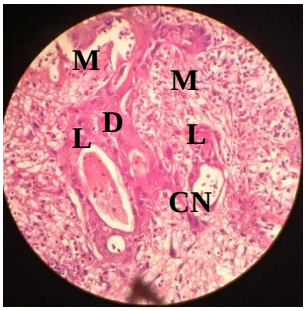


Fig. 5

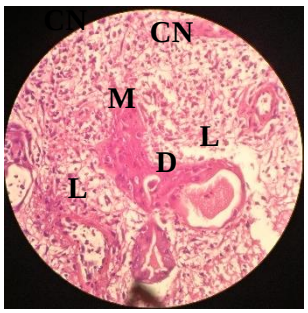


Fig. 6

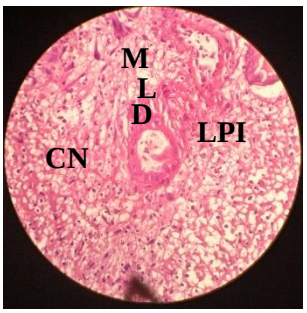


Fig. 7

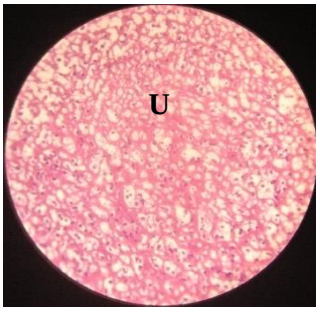


Fig. 8

MSG= MINOR SALIVARY GLAND ACINI, D= DUCTS, M= METAPLASIA, CN= COAGULATIVE NECROSIS, L= LUMEN (MUCIN WITH DEGENERATED NEUTROPHILS), U= ULCERATION, LPI= LYMPHOPLASMACYTIC INFLAMMATION

Scanner view reveals multiple bits of tissue with connective tissue stroma, salivary gland acini. ***(Fig. 1)***

Low Power View *reveals* ***Connective Tissue Stroma With,***

- ✓ Presence of mucous minor salivary gland acini with interlobular and intralobular ducts arranged irregularly, maintaining the lobular structure of salivary glands. ***(Fig. 1,3)***
- ✓ Presence of interlobular ducts lined with low cuboidal cells. Lumen filled with mucin and degenerated neutrophils. Salivary ducts undergoing metaplasia (nests of metaplastic simple squamous cells) surrounded by ill-defined coagulative necrotic tissue surrounded by lymphoplasmacytic infiltration. ***(Fig. 2,3,5,6,7)***
- ✓ Presence of fibrin-purulent membrane suggestive of ulceration. ***(Fig. 7,8)***
- ✓ Presence of bundles of collagen fibres interspersed with plump fibroblasts and spindle shaped fibrocytes. ***(Fig. 3)***
- ✓ Presence of dense and diffuse chronic inflammatory cells. ***(Fig. 2,4,7)***
- ✓ Numerous endothelial line blood capillaries of varying size and shape are also evident.

High power view confirms the above mentioned findings with mucous minor salivary gland acini, salivary ducts undergoing metaplasia (squamous) surrounded by coagulative necrosis and ulceration. Chronic inflammatory infiltrate chiefly composed of lymphocytes and plasma cells.

Overall features are suggestive of in the received slide

NECROTIZING SIALOMETAPLASIA OF THE MINOR SALIVARY GLANDS (LEFT RETROMOLAR TRIAGONE)

A Clinico-Radiographic-Pathological Correlation.
Consistent With The Clinical Findings.

Advised: Kindly, excise the lesion and keep a routine follow up.

RULED OUT,

- ***Ameloblastoma,***
- ***Adenomatoid Odontogenic Tumors,***
- ***Odontogenic Cysts,***
- ***Non- Odontogenic Cysts,***
- ***Mucoepidermoid Carcinoma,***
- ***OSCC,***
- ***Myoepithelioma,***
- ***Benign Salivary Gland Tumors.***

(*References: -Oral Diseases, 3rd Edition, Roderick A. Cawson et al.*
-Lucas's Pathology of Tumors of the Oral Tissues, 5th Edition, Raleigh Barclay Lucas),
- Shafer's Textbook of Oral Pathology, 7th Edition, R. Rajendran.
-Oral Pathology, 6th Edition, Regezi
-Oral & Maxillofacial Pathology, 3rd edition, Neville
-Differential Diagnosis of Oral & Maxillofacial Lesions, Wood and Goaz.
-Dardicks, Salivary Gland Tumor Pathology, 1st edition

NOTE TO CLINICIAN

- Necrotizing sialometaplasia (NS) is an uncommon, non-neoplastic, self-limiting inflammatory condition of the salivary glands. NS was first reported in 1973 by Abrams *et al.* as a reactive necrotizing inflammatory process involving minor salivary gland of the hard palate.
- In the World Health Organization (WHO) classification of salivary gland tumors, NS is classified under the group of tumor-like lesions.
- The clinical and histopathologic features of NS often simulate those of malignancies such as squamous cell carcinoma or salivary gland malignancy like mucoepidermoid carcinoma.
- Familiarity with NS and correct diagnosis are paramount in avoiding misdiagnosis and inappropriate treatment.
- **Ischemia of salivary gland tissue leading to infarction (trauma) is the most likely cause.**
- There are lobular infarction, necrosis and concurrent squamous metaplasia of ducts, and acini of salivary glands.
- As described by Anneroth and Hansen, the histopathogenesis of NS has five histological stages: **Infarction, sequestration, ulceration, repair and healing.** Histological features exhibit a spectrum ranging from ulceration, lobular necrosis, sequestration of necrotic acini, pseudoepitheliomatous hyperplasia of adjacent epithelium, squamous metaplasia of ductal epithelium and inflammatory changes. As these diagnostic criteria are quite distinctive, proper care should be taken in diagnosis of this lesion, so that misdiagnosis and unnecessary radical treatment can be avoided.
- NS is a self-limiting lesion and does not require any specific treatment other than follow-up. NSM fills in with granulation tissue and completely epithelializes its surface within three months. However, regular follow-up over the subsequent three months is extremely important because an NSM would resolve in that time. It will be prudent to do repeat biopsy in case if the lesion does not heal within 3 months.