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Granulomatous inflammatory lesion of buccal mucosa

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Abstract: *Oral Granulomatous inflammation is a unique form of chronic inflammation which occurs for variety of reasons.. Granulomatous inflammatory lesion have multifactorial etiology and may arise as reaction to environmental or genetic factors, infectious organisms or may be idiopathic.Here we are going to discuss the clinical presentation,diagnosis and management of granulomatous inflammatory lesion of buccal mucosa.*
Keywords: *Granulomatous inflammatory lesion,buccal mucosa mass,excision,biopsy.*

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I. Introduction

Oral granulomatosis is a rare non caseating granulomatous inflammatory disorder . Oral granulomatosis can develop at any age,there is no sex predilection and etiology remains unknown. Granulomas are distinct structures composed of epitheloid shaped macrophages,multinucleated gaint cells,lymphocytes and fibroblasts. Oral granulomatosis may represent as an unusual allergic reaction to foods,dental materials. Importantly onset of oral granulomatosis during childhood may predict future development of chron's disease.

Case Presentation:

A 3 years old male child came to our OPD with complaints of mass in right side of oral cavity for 2 weeks, which is gradually increasing in size,associated with pain. He had difficulty and pain in opening of mouth and pain during swallowing. He had no similar mass in his body any where.

On examination his general condition and vitals are normal. Examination of oral cavity shows 3cm x1cm mass which is pale in colour,firm in consistency,tenderness present, arising from right buccal mucosa.

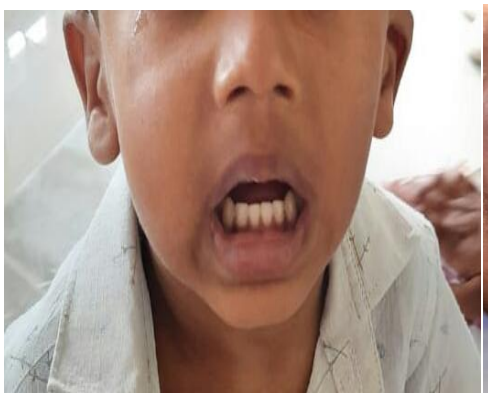
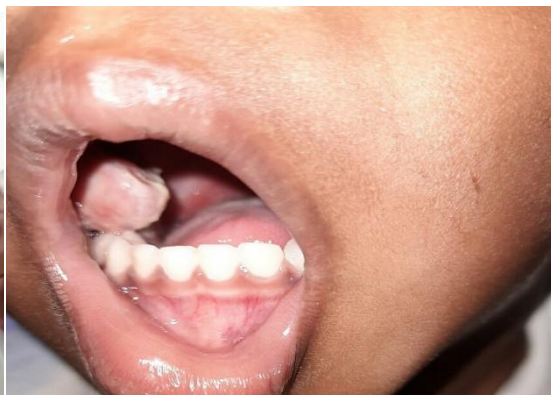

Fig 1 &2 showing mass in oral cavity

He was admitted in the ward and he was advised for routine blood tests and MRI of neck including cheek. His blood tests are normal and MRI shows an ill defined altered signal intensity at right buccal region extending upto subcutaneous tissue . The lesion shows hyperintensity on T2 and with few internal heterogeneous hypointense areas. Few prominent vessels also noted with possibility of hemangioma.

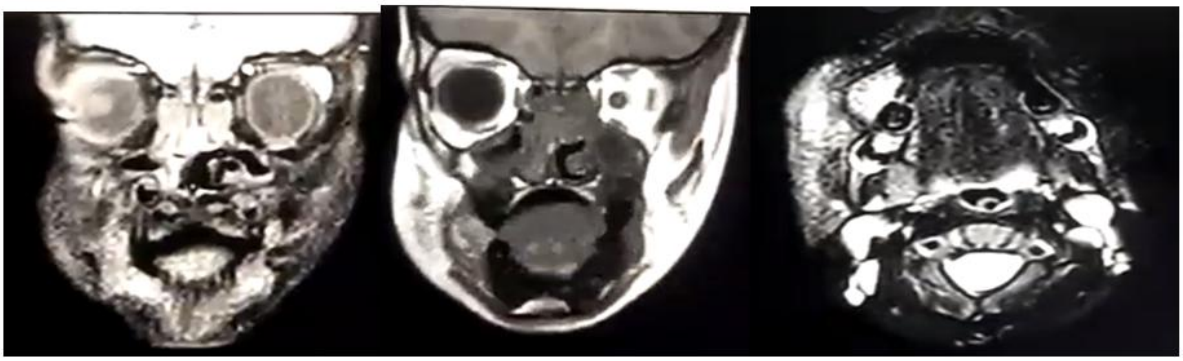

Fig 3,4,5 shows MRI images of the oral mass

We planned for excision of the mass and further histopathological examination. Under general anesthesia,mass was excise and removed then the base was cauterized. Specimen sample sent for biopsy.

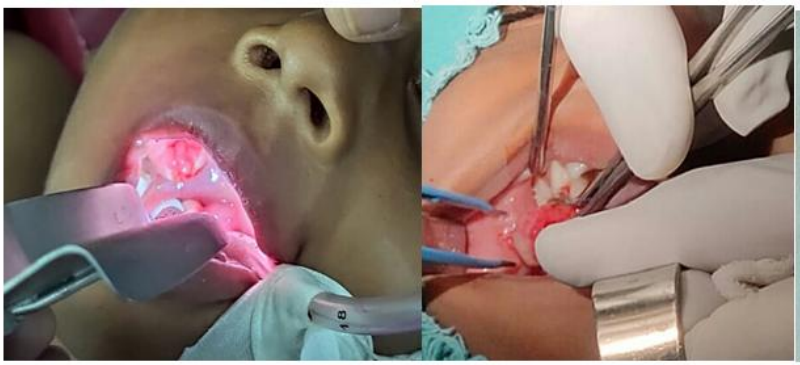

Fig 6,7 shows intra operative images

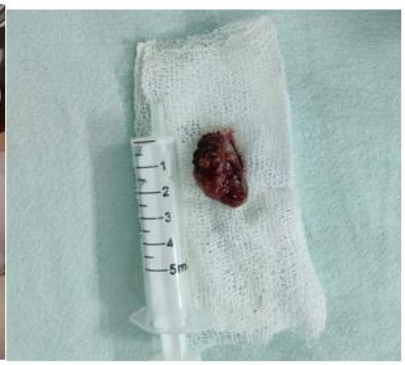

Fig 8 shows gross specimen

After 2 weeks histopathological report came,on microscopic examination,the section examined shows ulcerated buccal mucosa with underlying lobules of adipose tissue. The areas of granulation tissue,collections of macrophages and lymphoplasmocytic infiltrate.the inflammation extends into lobule of adipose tissue congested blood vessels,fibrous tissue. Which is suggestive of Granulomatous inflammatory lesion.

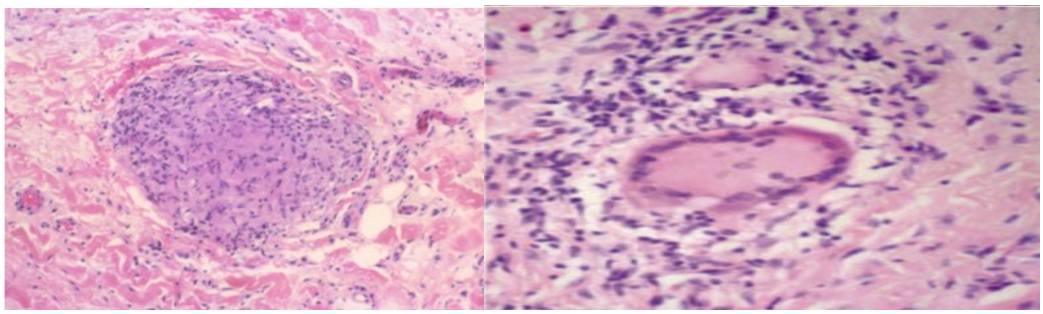

Fig 9,10 shows non caseating granuloma with multi nucleated giant cells

II. Discussion

Oral granulomatosis is characterized by persistent or recurrent soft tissue enlargement or oral ulceration. Focal granulomas may occur anywhere in oral mucosa or subcutaneous tissue, they present as localized firm mass and are occasionally multi nodular.

The etiology and pathogenesis of oral granulomatosis is unknown. Many studies suggest a delayed hypersensitivity reaction with an unlikely genetic component. Several studies have suggest a link between oral granulomatosis and food allergy, allergy to dental materials and inappropriate immunological response. Here in this patient, the triggers for buccal mucosa mass may be due to trauma in the buccal mucosa area that contributed to excess swelling. Campbell et al. more broadly suggested that oral granulomatosis is a heterogenous condition where various triggers exist. So identification of contributing factors and minimizing exposure to these triggers have been proven to maximize treatment efficacy.

In the present case, based on histopathological examination, the diagnosis is granulomatous inflammatory lesion. Oral granulomatosis is adisease with wide spectrum of clinical presentation. Affected patients typically present with labial swelling, oral ulcers, mucosal swellings, mucosal tags, gingival enlargement. The clinical and histopathological features of oral granulomatosis can be produced by variety of causes. The differential diagnosis of oral granulomatosis include Melkersson Rosenthal syndrome, Crohn's disease, Sarcoidosis, TB, Hypersensitivity reaction and Angioneurotic oedema.

Early diagnosis and management of oral granulomatosis is an essential in preventing permanent manifestations of the condition. Repeated conditions of buccal mucosa mass can result in permanent induration and swelling that can functionally impair a patient ability to speak or eat, as well as cause facial disfigurement. Spontaneous remission of oral granulomatosis is unlikely. It important to continue monitoring patients and to treat with intralesional , topical or systemic corticosteroids in order to prevent permanent change. Steroids have been shown to be effective in reducing and preventing the swelling. Other treatment modality include surgical excision.

III. Conclusion

Oral granulomatosis can be adistinct clinical disorder or can be an initial presentation of underlying systemic diseases such as Crohn's disease or Sarcoidosis.so thorough history, physical examination and laboratory investigations should be performed to exclude other etiologies. Corticosteroids are considered mainstay treatment for oral granulomatosis. In addition continuous follow up of the patient is advised as a step in prevention of possible systemic granulomatous disease. However if the etiology is correctly identified and appropriate therapy rendered, prognosis of the condition is significantly improved.

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