

## Case Report

### Chronic Recurrent Parotitis in Adult Patient– A Case Report

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#### ABSTRACT:

Parotitis is caused by duct obstruction such as sialolithiasis, infectious organisms such as viruses or bacteria, and inflammatory conditions such as Sjogren syndrome, rheumatoid arthritis, and sarcoidosis. Parotitis can result in pain, discomfort, glandular enlargement, swelling, dry mouth, and sometimes fever, and difficulty swallowing. Predisposing factors include dehydration, malnutrition, sialolithiasis and medications, causing decreased salivation. It is characterized by recurrent episodes of swelling and pain of the parotid gland. Treatment typically involves antibiotics for bacterial infections, hydration, and maintaining good oral hygiene. Here, we present an overview of such a case.

**Key words:** Chronic Parotitis, Recurrent Parotitis, Parotid Gland, Parotitis, Salivary Gland, Recurrent Parotid Infection

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#### INTRODUCTION

The parotid gland is one of the salivary glands enclosed within a facial capsule. It comprises a superficial lobe and a deep lobe separated by the facial nerve. It is an exocrine gland that secretes saliva into the oral cavity after parasympathetic stimulation. The Stensen duct is the primary excretory duct for the parotid gland, passing through the masseter muscles, penetrating the buccinator, and then into the oral mucosa lateral to the second maxillary molar. The saliva secreted aids in chewing, swallowing, digestion, and vocalization.<sup>[1]</sup> Parotitis is inflammation of the parotid glands and is the most common inflammation of the major salivary glands. Parotitis may be Acute or Chronic and Recurrent. Acute refers to sudden onset of pain and swelling in parotid gland whereas chronic recurrent parotitis (CRP) is characterized by intermittent, painful and swelling of the gland. This disease is characterized by recurring episodes of swelling and pain in the parotid gland, usually accompanied by fever and malaise. Etiology of CRP is unclear. Parotitis may be associated with calculi or stenosis of the ducts due to injury. The more common factor is decreased salivary flow, which could be secondary to inflammation. In most cases,

chronic diseases are either autoimmune or idiopathic, with superimposed bacterial infection, and should not be regarded as a chronic bacterial infection. Researchers have suggested that recurrent parotitis arises due to retrograde infections eventual to stasis of saliva, allergic, immune deficiency, genetic and hereditary factors.<sup>[1,2,3]</sup>

#### CASE REPORT

A 30-year-old female patient came to Department of Oral medicine and Radiology, St. Joseph dental college, Duggirala, Eluru with a chief complaint of pain and swelling in the left lower back cheek and tooth region for 5 days. Patient gave a history of pain which is mild in onset, continuous, dull throbbing type, aggravate on taking food relieves on taking medication (unknown), associated with sleep disturbances. Patient history of fever, headache and decreased salivary secretion for last 5 days. Extra oral examination revealed on inspection a diffuse solitary swelling of size approximately 2\*2 cm involving middle and lower third of face extending antero-posteriorly 1cm away from corner of mouth to 1cm away from tragus of ear. Superio-inferiorly 0.5cm below ala tragus plane and 0.5cm below lower border

of mandible. [fig-1,2] All inspector findings are confirmed on palpation. Both the parotid glands were examined for tenderness and purulent discharge. The left parotid gland was tender on palpation and soft in consistency whereas the right parotid gland was

normal. Intra oral examination revealed an elevated left parotid papilla. [fig-3] On milking the gland, thick, cloudy appearing saliva was oozing out of the duct. On lymph node examination bilateral lymph nodes are non-palpable and non-tender.



**Figure No -1; Gross asymmetry seen involving left lower back cheek region**



**Figure No -2; Patient left side facial prolife**



**Figure No-3; Intra oral view showing elevated left parotid papilla**

Based on clinical findings provisional diagnosis is given as parotitis involving left side. Advised Investigations puffed cheek view and ultra sound of left parotid gland. Puffed cheek view revealed

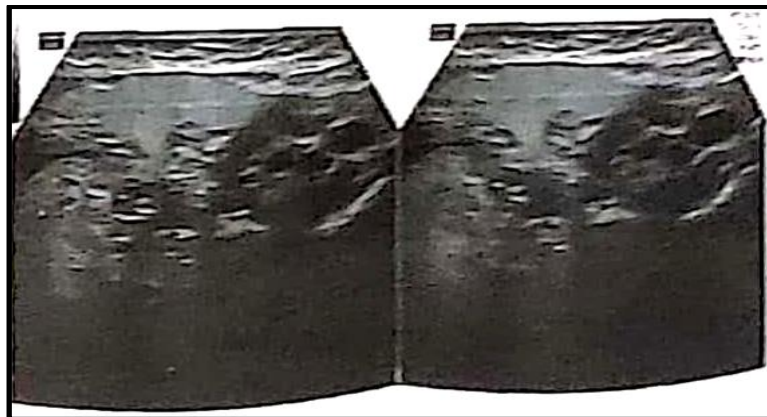
stenosis is evident involving the inter glandular duct of the parotid gland on left side, mild calculi is evident on left side. [fig-4]



**Figure No -4; Puffed cheek view**

Ultra sound revealed left parotid gland is mildly enlarged in size with subtle increased vascularity. Few sub centimetric intra-parotid lymph nodes are present and no collections evident. Cervical lymphatic chain few enlarged lymph nodes are noted at the left

level IB- II, the largest one measuring about 1.6x0.5cm with inflammatory morphology. No necrosis and collections evident. Final impression is left sided parotitis. [fig-5,6]



**Figure No -5; Ultra sound showing enlargement of left parotid gland**



**Figure No-6; Ultra sound showing intra parotid lymph nodes of left parotid gland**

Total 3 follow-ups done in seven weeks with 2 weeks interval each. In initial treatment first week TAB AUGMENTIN-625mg twice daily after food for five days, TAB HIFENAC-D thrice daily after food for five days and TAB PANTOP-40mg once daily before food for five days are given. Patient recalled on third week for first follow up. Patient gave history of recurrent swelling and mild pain on left lower back

cheek region after medical treatment for one week. Patient advised to do lemon squeeze into mouth thrice daily for 7 days and advised to take more fluids. Treatment given in first follow-up is TAB AZITHRAL-500mg twice daily after food for five days, TAB HIFENAC-P once daily after food for five days and TAB.PANTOP-40mg once daily before food for 5 days. [fig-7]



**Figure No -7; First follow-up face profile swelling on left lower back cheek region**

Patient recalled on fifth week for second follow-up. Patient history of mild swelling on left lower back cheek region and no history of pain. Advised patient to continue lemon squeeze and treatment given in second follow-up is SYRUP K-CIT 10ml twice daily after food for one week. [fig-8]



**Figure No-8; Patient face profile on second follow up mild swelling on left cheek region.**

Patient recalled on seventh week for third follow-up. Patient no history of swelling and pain. Swelling and pain are reduced on left cheek region. Advised patient to take plenty of fluids.



**Figure No 9; Patient face profile on third follow-up swelling and pain reduced**

### DISCUSSION

CRP (Chronic Recurrent Parotitis) patients suffer from recurrent swelling and tenderness of the involved gland which gradually leads to the destruction of the gland. Reducing the frequency of recurrence and improving the quality of life are the objective of treatment. CRP commonly occurs in middle age with female predilection. Clinical examination reveals swelling and tenderness of the involved gland. Elevated parotid papilla, reduced salivary flow and secretion are viscous and milky in appearance with clumps of material interspersed. The etiology of the disease is multifactorial. There are various theories to explain the pathogenesis, one theory postulates that reduced salivary flow results in decreased mechanical cleansing, allowing bacteria to colonize and invade the duct. Retrograde infection by resident oral flora can result directly in chronic recurrent sialadenitis. Other proposes that repeated episodes of acute infection may lead to mucus metaplasia of ductal epithelium resulting in increased mucus content of secretions, stasis and further episodes of inflammation. In our case first two follow-ups swelling is recurrent and pain is reduced after using antibiotics and pain relievers, in third follow-up advised to take plenty of fluids and gave k-cit syrup. It is medication primarily used to manage and prevent ductal stones, composition of k cit syrup are citric acid that helps to bind calcium ions, preventing the formation of ductal stones. Potassium citrate acts as a alkalizing agent after using this syrup for 1 week swelling over left cheek is reduced. [1,2,3]

### CONCLUSION

The cause for chronic recurrent parotitis is multifactorial, patients should be educated to take higher liquid content in the diet, to do self massaging of the gland and to maintain oral hygiene so as to avoid retrograde infection. In spite of various advanced imaging techniques, imaging modality

should be done in a given clinical situation. Using different imaging tool over another for evaluating particular problems. In our case we preferred ultra sound as it is simple to perform and cost effective. The success of the treatment depends on the type of intraductal medicament used and patient maintaining oral hygiene.

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