

## Case Report

### Bacterial Sialadenitis: A Case Report

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#### ABSTRACT:

Sialadenitis is an acute infection of the salivary glands. It is painful and inflammatory infection that affects parotid and submandibular gland. Staphylococcus aureus is the most common pathogen associated with parotitis. During an acute inflammatory process, there is swelling of the affected gland, pain, gland tenderness, fever and on occasion difficulty in opening the mouth. The management relies mainly on early administration of antimicrobial therapy and surgical drainage. Here we report a case of recurrent bacterial sialadenitis in a 48 year old female patient on the left side of her face.

**Keywords:** Parotid gland, Bacterial sialadenitis, infection.

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#### INTRODUCTION

Sialadenitis, an acute infection, commonly affects the parotid gland. The microbiology of infection of the submandibular and sublingual glands has rarely been reported. The chief agent is Staphylococcus aureus. However, streptococci (including Streptococcus pneumoniae and Str. pyogenes) and gram-negative aerobic bacilli (including Escherichia coli) have also been reported.

Treatment is rehydration of the patient encouraging the salivary flow, gland massage and antibiotic therapy. If an abscess occurs, it will need surgical draining. We present a case report of a 48 years old female patient who reported with swelling on left side of her face.

#### CASE REPORT

A 48 years old female patient reported to the Department of Oral Medicine and Radiology, Bhabha Dental College, Bhopal with complaints of painful swelling on left side of her face since 5 days. History reveals that patient was asymptomatic 5 days back than she noticed painful swelling on left side of her face. Pain was sudden in onset, continuous nature, moderate in intensity, radiating to left ear and aggravated on mastication. History of swelling which was initially small in size and gradually progressed to attain the present size. Patient also gave a

history of associated fever before 3 days. Dental and Family history was non-contributory. Her vital signs were within normal limits A single submandibular lymph node palpable on the left side which was approximately 0.4 x 1.5cm in size, which is firm, tender and mobile.



**Figure 1.** Facial asymmetry on left side of face and swelling on the left side of face

On extra oral examination, it revealed facial asymmetry due to swelling on the left side of face. The swelling extends 5cm away from commissure of lips to left ear lobe anteroposteriorly and 1 cm above left tragus to inferior border of mandible superoinferiorly. Its measures approx 5x3 cm. skin over the swelling is

erythematous. On palpation the swelling is soft in consistency, tender and local rise in temperature. On Intra oral examination, inspection revealed inflamed parotid duct orifice on left side. On palpation, pus discharge evident and tender on palpation.



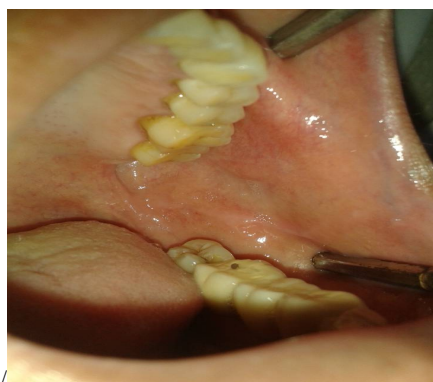
**Figure 2** Inflamed Parotid Duct Orifices

Ultra sonogram (USG) of left parotid gland appears edematous measuring approx 28x34mm. Mild relative increase in vascularity is noted. Few hypoechoic areas within the parenchyma are noted suggestive of Parotid lymph node. Right parotid is normal in size & Echotexture Impression given of Left Parotitis.



**Figure 3** USG scan reveals increased vascularity

Based on the history, clinical examination and investigation the case was diagnosed as Bacterial sialadenitis of left parotid gland. The differential diagnosis considered was sjogren's syndrome, sialolithiasis, mumps and parotid gland tumor.



**Figure 4** Post OP Picture after 5days



**Figure 5** Post OP Picture after 15 days.

Antibiotics were prescribed along with analgesics. Patient was instructed to “milk” the involved gland several times throughout the day. Increased hydration and asked for improved oral hygiene. Patient was then recalled after 5 days. Medication after 5 days continued till the total disappearance of the swelling.

### DISCUSSION

Sialadenitis is characterized by an inflammatory enlargement of one or more salivary gland. It exists in both acute and chronic forms. Though it's preferentially affects parotid and submandibular gland, the submandibular sialadenitis is uncommon. The disease tends to progress and if left untreated may lead to the formation of a fibrous mass in the gland.<sup>1</sup> clinically, acute submandibular sialadenitis differs from parotitis mainly in the site of the swelling and discharge of pus from Wharton's duct. A wide variety of bacteria has been incriminated, but Staphylococcus aureus has been the most frequently reported isolate. The other isolated organisms have included streptococci, Pseudomonas aeruginosa, Escherichia coli and Moraxella catarrhalis.<sup>2</sup> The clinical signs and symptoms of sialadenitis include fever, chills, localized painful firm swelling of the affected gland area, with redness of the overlying skin. Other constitutional features include a foul taste in the mouth, dry mouth, decreased mobility of the jaw, and a general ill feeling. Pus drainage through the gland duct may also present. Debilitating condition, dehydration, malnourishment, autoimmune diseases, and recovery after surgery, certain medications increase the risk.<sup>1</sup> Most often the diagnosis of submandibular sialadenitis is made by the history and clinical features of the lesion. Further investigations like radiograph and ultrasound help to rule out sialolithiasis, wharton's duct abnormalities and glandular neoplasm.<sup>1</sup> The microscopic features in the earliest stages of sialadenitis are vasodilatation, with increased neutrophils in the vessels, emigrating into the parenchyma and ducts. Colonies of bacteria is seen particularly in the ducts. In the advanced stages of infection, the ducts become dilated with neutrophils. The destruction of duct epithelium and acini occurs, leading to formation of microabscesses. With impairment of host immune responses, parenchymal destruction progresses and fusion of microabscesses leads to gross abscess formation and destruction of gland. Often healing occurs by fibrosis of the gland.<sup>1</sup>

The administration of antimicrobial therapy is an essential part of the management of patients with

suppurative sialadenitis. Most cases respond to antimicrobial therapy; however, sometimes an inflamed gland may reach a stage of abscess formation that requires surgical drainage. Broad spectrum antimicrobial therapy is indicated for the treatment of all possible aerobic and anaerobic pathogens. Penicillinase-resistant penicillin or a first-generation cephalosporin is generally adequate coverage for *Staphylococcus aureus* infection.<sup>3</sup>

#### **CONCLUSION**

The sialadenitis is inflammatory disorder if untreated can cause considerable morbidity to the patient and may result in a fibro inflammatory mass in parotid region. Superficial parotidectomy has a very high success rate with minimal long term complications and should be offered early in established cases, to reduce unnecessary morbidity.

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