



A RARE CASE OF PAROTID ABSCESS

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ABSTRACT A 17 year old student presented with rapidly progressive left sided facial swelling since 8 days associated with fever and painful mouth opening. Patient was admitted and on evaluation, it was diagnosed as abscess arising from parotid gland parenchyma. Along with conservative management, incision and drainage was done following which patient recovered and was discharged in a stable condition. Parotid abscesses are rare. They are mostly complications of acute parotitis caused by bacteria like staphylococcus, streptococcus and viruses like mumps. Other causes include obstructing stones. Diagnosis is mostly prompted by clinical examination which can be confirmed by imaging. Treatment is conservative for initial stages but once abscess formation occurs, incision and drainage needs to be done. Prognosis is excellent provided effective drainage done.

KEYWORDS : parotid, abscess, infection

INTRODUCTION

Infections of major salivary glands like parotid gland located in retromandibular fossa can arise from retrograde spread of oral infections through stensen's duct. Causative organisms include Staphylococcus, Streptococcus, Haemophilus, Paramyxovirus, Parainfluenza, etc.¹ Initial infective or inflammatory pathology can be in either lymph nodes or parenchyma. If not treated promptly, it can progress to abscess formation which is very rare in occurrence.²

Here we present a case of parotid abscess in a 17 year old student who presented with sequential complaints of fever followed by facial swelling on left side followed by painful restricted mouth opening. He was managed effectively after appropriate evaluation and discharged in a stable condition.

CASE REPORT

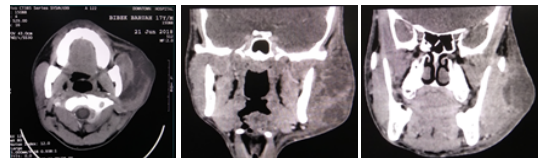
A 17 year old male student presented to ENT OPD with complaints of insidious onset, rapidly progressing left sided facial swelling (figure 1) since 8 days which was preceded by intermittent, low grade fever since 10 days and followed by painful and restricted mouth opening since 5 days. No prior complaints related to ear, oral, dental or throat infections were present.



Figure 1 (Patient presentation in both anterior and lateral views)

On examination, a 10 cm x 6 cm irregular swelling seen over the left side of face and neck in front of pinna extending till anterior border of upper third of sternocleidomastoid muscle (figure 1). The overlying skin was red and congested. Local rise of temperature noted. Swelling was tender and firm to hard in consistency. Other ENT examination showed left sided deviated nasal septum, otherwise normal. Systemic examination was normal. A provisional diagnosis of left parotid swelling was made and a possibility of Mumps, Parotid abscess, Infected Sebaceous cyst and Infected branchial cyst were kept in mind. Patient admitted and on further evaluation, aspirated pus sent for culture showed growth of Group A beta-haemolytic Streptococcus and

appropriate antibiotic started as per sensitivity pattern. WBC count was elevated ($27300/\text{mm}^3$) and Neutrophil differential count raised to 80%. ESR elevated to 70mm in first hour. Retroviral tests and pus for AFB were negative. USG showed abscess of size 24 x 19 x 49 mm³ in the subcutaneous plane at the anterior aspect of the left parotid gland with no deep extension. FNAC of aspirated fluid showed only pus cells and lymphocytes but no malignant cells. CT also confirmed the USG findings along with reactive level II and III lymph nodes (Figure 5,6,7). A final diagnosis of left parotid abscess was confirmed.



Figures 2,3,4 showing CT scan in both axial and coronal planes

Conservative management included intravenous fluids, antibiotics and analgesics. Patient posted for incision and drainage under LA. Incision given at the most prominent point and approximately 50ml fluid drained breaking all septations in between the loculi. A corrugated rubber drain tube (Figure 8) was kept for 3 days post-op for spontaneous drainage of further collection. Later, patient was discharged in a stable condition with appropriate advice (Figure 9,10).



Figure 5 showing drain kept after I&D



Figures 6,7 showing patient condition during discharge

DISCUSSION

Parotid abscess is a rare entity. Prior stage of parotitis can be aborted by antibiotics but once abscess stage has formed, drainage is indicated. If not treated promptly, it can spread to deep neck spaces causing significant morbidity and even mortality if vital structures involved. Predilection of parotid gland for parotitis and abscess may be due to slower flow rate of saliva, long length of duct causing stasis & ascending infections, serous type of saliva secreted by parotid (as mucin content includes anti-bacterial products, secreted by other glands).³

Other Contributing factors apart from microbes are poor oral hygiene and trauma of the oral cavity, dental diseases, caries tooth, protein-energy malnutrition, dehydration, salivary stones & obstruction of Stensen's duct, use of anticholinergic drugs and antihistamines, Sjogren's syndrome, diabetes mellitus.³

Characteristic presentation of parotitis includes fever, erythematous swelling, pain on deglutition, trismus (as seen in our case). Acute infections like mumps usually settle in a week which didn't happen in our case. Chances of facial nerve palsy are present as it courses through the gland but didn't happen in our case. Tumors and drug-induced disorders tend to be more common in elderly. Infected cysts or fistulas of the first branchial arch should be considered in the differential diagnosis of a parotid abscess but no external openings found in our case. Tuberculosis of parotid can present as a localized, unilateral, slow-growing mass with some degree of fixation and is difficult to distinguish from a parotid tumor. In our case, there was no fixation and pus for AFB was negative.

Prompt history with acute onset of fever and swelling accompanied by leucocytosis and imaging (USG being first choice) can easily clinch the diagnosis of a parotid abscess. Other tests that can be done in cases of parotid swellings are – Saliva examination (thick yellow in acute suppuration), MR sialography – to examine the ducts, MR angiography – to demonstrate topography of vascular supply, Sialoendoscopy – to visualise ducts of parotid (rule out stones).

The treatment of parotid abscess consists of initially conservative management with gland massage, rehydration, sialogogues such as lemon juice and good oral hygiene. Aggressive broad spectrum antibiotics to cover staphylococci and streptococci is the life-saving and complication preventing treatment modality.

Abscess formation requires incision and drainage (as done in our case). Sometimes total parotidectomy⁵ needs to be done in cases complicated with facial palsy. Temporal lobe abscess⁶ was one of the rare complications of parotid abscess but no related symptoms were noticed in our case. Incidence of such complications emphasizes the need for radiologic imaging to see the extent.

CONCLUSION

The knowledge of parotitis and its complications such as parotid abscess is crucial in patient care. Significant is that an abscess needs to be drained and patients should be started on antibiotics. Initially, a broad spectrum antibiotic is given and changed accordingly. Complications can be effectively prevented by prompt early diagnosis and swift management, hence reducing the morbidity and mortality.

CONFLICTS OF INTEREST: None

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