

Parotitis with Unusual Presentation

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Abstract: Chronic recurrent non-specific parotitis is characterized by recurrent episodes of swelling and pain of unknown etiology in the parotid gland. An abscess of the deep parotid lobe is an uncommon complication of chronic parotitis. Characterized by warm erythematous facial skin and Ipsilateral cheek swelling, parotid abscesses have often been associated with decreased saliva production and immunodeficiency. We offer a case of a large deep parotid lobe abscess presenting similarly to a peritonsillar mass. The parotid abscess were surgically drained extraorally and treated expectantly with antibiotics. Bacterial and viral infection of the intraparotid and periparotid lymph nodes, or of the glandular parenchyma, can lead to inflammatory and subsequently suppurative changes, which can result in abscess formation.

Treatment of choice is incision and drainage along with Analgesics and antibiotics were recommended.

Keywords : Parotid abscess, Lymphadenitis, Staphylococcus aureus, Intraparotid, Periparotid

Introduction:

An infection of the parotid gland, a major salivary gland localized in the retromandibular fossa, can arise from ascending infection via Stensen's duct, or from bacteraemia or viremia. Bacterial and (more rarely) viral infection of the intraparotid and periparotid lymph nodes, or of the glandular parenchyma, can lead to suppurative changes, which can result in abscess formation. If the process continues pus penetrates the capsule and invades the surrounding tissue, and extends downward into the deep fascial planes of the neck, backward into the external auditory canal, or outward into the facial skin. The most common pathogen associated with acute bacterial parotitis and head and neck abscesses is Staphylococcus aureus both in

adults, and in pediatrics patients⁽¹⁾. Parotitis may be acute or chronic. 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 which may or may not be associated with food intake⁽³⁾. The term "chronic recurrent non-specific parotitis" is used in cases where no definite etiology is identified⁽⁴⁾.

Additional risk factors include a history of diabetes mellitus or Sjogren's syndrome. Abscess formation may occur through hematogenous spread or suppurative lymphadenitis of the intraparotid or periparotid lymph nodes. Here, we present a case of a deep parotid abscess with an unusual presentation. Abscess formation is a possible but uncommon complication and is most often seen in elderly patients in the setting of dehydration, poor oral hygiene, or recent oral surgery. It is theorized that this is due to the potential for retrograde spread of oral bacteria into the gland via Stensen's duct under these circumstances⁽⁵⁾. Additional risk factors

include a history of diabetes mellitus or Sjogren's syndrome. Abscess formation may occur through hematogenous spread or suppurative lymphadenitis of the intraparotid or periparotid lymph nodes. Here, we present a case of a deep parotid abscess with an unusual presentation.

Case presentation:

A 68-year-old man presented in the out patients department of Oral medicine and Radiology with a chief complaint of a right-sided swelling over the right side of the face. He was having temperature and had decreased his oral intake due to difficulty and pain since 4-5 days. For that he has already visited to the department of oral and maxillofacial surgery in the same region 18 months prior which he had aspirated the swelling by incision and drainage of the same swelling and had taken the medications of Ampicillin- clavulanic and steroids.

The skin over the swelling is inflamed, with the signs of infection, ulcerations and scars seen over the lateral border of swelling. To concerns of oedema of the right preauricular region swelling, and right parotid tenderness. In addition the oedema in right masticatory muscle were noted. Ampicillin and steroids were given and the fluid collection were drained out via an incision over the abscess of preauricular area anterior proximity of the swelling. for the pus drainage the catheter was placed secured with subcuticular suture.

An Approximately 20cc of frank purulence discharge was drained. A swab of the parotid swelling revealed Gram-positive and Gram-negative rods consistent with normal oral flora.

No anaerobes were isolated. After drainage, the patient showed significant clinical improvement and showed need

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for drainage catheter placement. As shown in (Figure 3 and 4). He was discharged on a two-week course of amoxicillin with a steroid taper, warm compress, , and pain control analgesics.

Pathology: Showed no parotid tissue. There was an acute-on-chronic inflammation of subcutaneous tissues.



Figure 1 shows the preauricular swelling extending from 1 to 2 cm from right corner of mouth to 3 cm away from preauricular area.



Figure 2 shows prominent extraoral sinus tract opening lateral border of the swelling.



Figure 3 shows the preauricular swelling extending from 1 to 2 cm from right corner of mouth to 3 cm away from preauricular area.

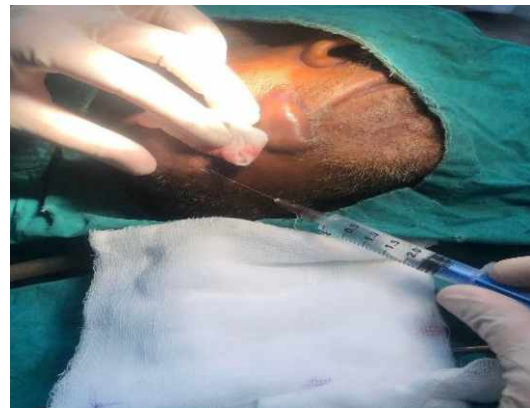


Figure 4 shows drainage of the pus from the abscess with the help of syringe before the incision.



Figure 5 showing inserted drainage catheter, secured by sutures.



Figure 6 showing marked decreased of the oedema and healed extraoral sinus tract.

Discussion

Our patient's presentation was unique in that his abscess extended deeply into the preauricular region. In contrast, most parotid abscesses typically extend from medial to lateral, often necessitating percutaneous surgical intervention. Additionally, he did not have the typical risk factors associated with parotitis and deep parotid abscess formation, such as diabetes, immunosuppression, Sjogren's disease, xerostomia, or a history of oral surgery⁽²⁾. The typical presentation of a parotid abscess is swelling in the parotid region with a sudden increase in swelling before seeking care. An acute infection is usually characterized by warm, erythematous skin covering the parotid gland. In frequently, blood and pus discharge⁽³⁾. The Etiology of a Chronic recurrent Parotitis is unclear. Researchers have suggested that recurrent parotitis arises due to retrograde infections eventual to stasis of saliva, allergic, immune deficiency, genetic and hereditary factors⁽⁴⁾.

Malnutrition and medications that decrease salivary flow may be predisposing factors for parotitis⁽⁶⁾. In infants younger than two months, parotitis is usually associated with viral infection or transient bacteremia⁽⁷⁾. Diabetes mellitus and Sjogren's syndrome may be predisposing factors for infection and more severe presentation in adults. Poor oral hygiene and tooth extraction history, as well as oral trauma, xerostomia, or ductal obstruction, may also be connected with a higher risk of parotid abscess formation in addition to having a preexisting parotid Warthin's tumor, sialolithiasis or immunosuppression⁽⁸⁾. parotid gland can become infected via an ascending infection through Stensen's duct, from bacteremia, or even viremia. Many factors may be involved in assisting in the ascension of bacteria through the Stensen's duct. Decreased secretions, especially in a malnourished patient, are a significant factor in bacterial ascension⁽⁹⁾.

The avenues for infection and neoplasms from the external environment to the parotid gland classically seen in necrotizing external otitis, or as conduits for drainage of salivary fistulas. It has been rarely reported as a conduit for drainage from a primary parotid infection. Chronic parotitis should be suspected in healthy patients without observed sialolithiasis, good oral hygiene, and no history of dehydration presenting with painful and progressively enlarging induration in the periauricular region or overlying the masseter muscle. When parotitis is coupled with otorrhea, drainage may occur⁽¹⁰⁾. The Differential diagnosis for chronic parotitis includes viral parotitis, parotid lymphomas, parotid hemangioma, parotid lymphangioma, papillary cystadenoma lymphomatosus, obstructive sialoadenitis from sialolithiasis or neoplasms (benign and malignant), systemic disorders such as alcoholism or diabetes, and autoimmune disorders such as Sjogren syndrome. Imaging tests are

helpful to distinguish these diseases. USG detected parotid gland enlargement and hypoechoic areas in the gland, indicating suppurative parotitis. CT is more advantageous in the detection of parotid gland duct anomalies, neoplasia, and deep-neck abscesses than USG⁽¹⁰⁾.

The treatment of deep parotid infections generally consists of antibiotics, hydration, and sialogogues to increase movement of saliva. Intravenous antibiotics are recommended, especially for children and geriatric patients⁽²⁾. Once an abscess has formed, surgery is required to drain the affected space. The choice of the antimicrobial agent varies depending on culture results, but a broad agent that covers aerobic and anaerobic pathogens is generally preferred. To prevent recurrence, the patient should be counselled on good oral hygiene, maintaining sufficient hydration and returning to seek care if fever or swelling reappears⁽¹⁰⁾.

Conclusion: We present an unusual case of parotid abscess presenting as a peritonsillar infection that required extraoral incision and drainage. While a rare diagnosis, the recurrences of the parotid abscesses can have significant morbidity and mortality as an untreated parotid abscess can spread quickly through the deep spaces of the head and neck. Early diagnosis and timely treatment of recurrences of parotid abscesses with antibiotics and rehydration might help to avoid serious complications development.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

Informed Consent Statement

Written informed consent has been obtained from the patient(s) to publish this paper.

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