
Parotid Abscess in Young Adult: Case Report

Cristiani Nadya Pramasari

Department of Oral and Maxillofacial Surgery, Faculty of Medicine, Mulawarman University, Indonesia

ABSTRACT : Parotid abscess is a rare pathology in maxillofacial. In some countries, it occurs in elderly patients and patients with history of oral sepsis. A-25-years-old male patient came to the Oral and Maxillofacial Surgery Clinic with complaints of swelling in his right cheek since 2 weeks ago. Physical examination showed fluctuant swelling in front of right tragus. The patient was diagnosed with parotid abscess. The treatment was given are intravenous antibiotics, and drainage incision under general anesthesia. Early diagnosis and proper intravenous antibiotics are the keys to the treatment.

KEYWORDS: Intravenous antibiotics, Oral sepsis, Parotid abscess

I. INTRODUCTION

The parotid gland is the largest salivary gland and located on the lateral surface of the masseter muscle and surrounded back side of this muscle ¹. This gland is the most commonly affected salivary gland by inflammation ². Parotitis is defined as inflammation of the parotid glands and triggers by several factors including infection. Parotitis can be treated conservatively with improving oral hygiene, adequate hydration, and antibiotics. However, if the disease progresses or the treatment is inadequate, parotitis can develop into parotid abscess ³.

A parotid abscess is acute suppurative parotitis with an abscess formation and relatively rare in children and adults. It occurs mainly in newborns, premature infants, the elderly, and the immunocompromised host. Parotid abscess can potentially spread into deep neck spaces to cause systemic infections. It may result in life-threatening complications such as mediastinitis, upper airway obstruction, aspiration pneumonia, thrombosis of the jugular vein, and necrotizing fasciitis ².

II. PURPOSE

This case report is to discuss the management of treatment in parotid abscess in young adult patient.

III. CASE REPORT

A twenty five years old male reported with the chief complaint of pain and it was associated with swelling on the right side of ear (Figure 1). The patient had visited dentist before 7 days and was prescribed antibiotics. There was no relief in the pain and swelling. There was no difficulty in chewing, swallowing or any sore throat. This patient referred to Oral and Maxillofacial Surgery Clinic for the next treatment. On general physical examination, the patient had stable vital signs. Examination showed asymmetry of face with palpable soft and fluctuant swelling in front of right tragus. There are no caries in his teeth and oral hygiene was satisfactory. Diagnosis Parotid Abscess was made to this patient.

Since the patient had already taken medication with no signs of relief, it was decide to performed incision and drainage the abscess form the parotid region. Under aseptic conditions, incision along 1 cm was made and approximately 5 ml of the pus was drained, then the parotid gland gently explored through the parotid fascia using blunt instrument to break down loculi of pus and improve drainage. A corrugated rubber sheet (drain) was placed into parotid space and dressing was given (Figure 2). The pus was sent for microorganism culture. During hospitalization, patient was given Intravenous antibiotic Ceftriaxone 1 gram/12 hours, analgesic Metamizole 1 gram/8 hours, and multivitamin. Post operatively healing was uneventful. At follow up examination patient's clinical outcome was found to be satisfactory (Figure 3).

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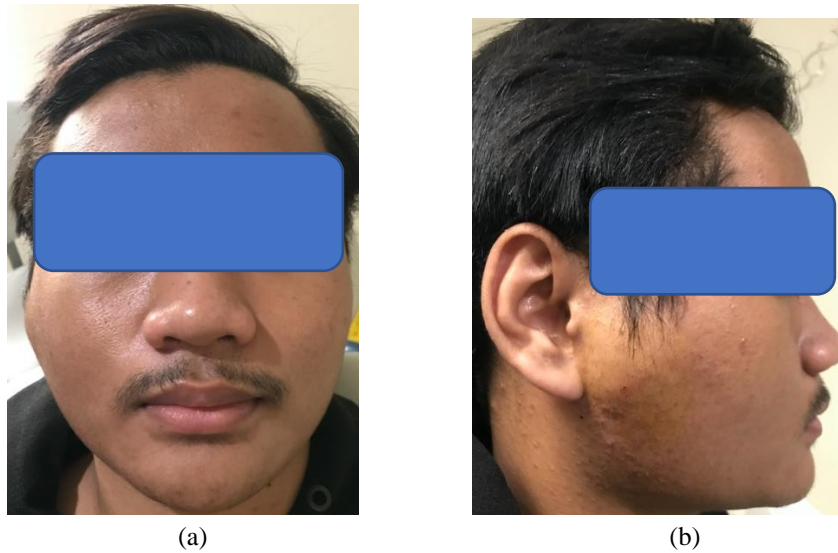


Figure 1. Extraoral appearance. (a) facial asymmetry in right side, (b) swelling in front of right tragus



Figure 2. Drain placement after incision and pus drainage

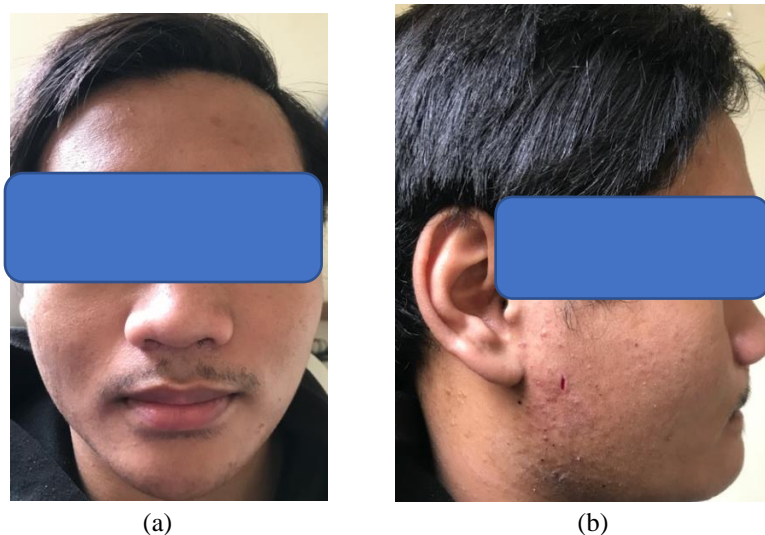


Figure 3. Clinical appearance 1 week after treatment. (a) facial swelling was decreased, (b) good wound healing

IV. CASE DISCUSSION

Parotid gland are easily able to infected by infectious agents via 4 routes, including : 1) an intraorally ascending infection via the salivary duct opening (Stensen's duct) ; 2) infection of the parenchyma of the primary gland; 3) hematogenous spread; and 4) contiguous spread of peri and/or intraparotid lymphadenitis into the gland parenchyma following primary site infection³. The spread of organisms into the parotid gland may be increased by poor oral hygiene or dental infection, medications that suppress salivary flow, and duct obstruction with tumor or stone⁴.

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Parotid abscess is commonly associated with elderly, immunocompromised, Sjogren syndrome, patient on anticholinergics and antihistamines drugs therapy⁴. Parotid abscess can present as isolated issue or as a manifestation of other rare diseases. Even the latest research reported experiences of Covid-19 associated parotid abscess. Pathogenesis can be suspected is xerostomia⁵. It is possible that young patient with no systemic disease had chronic relative dryness of the mouth. It can be related due to Indonesian's climate as tropical country. Mild dehydration may caused reduced salivary flow and this condition can be predisposition factor to bacteria invasion within the gland⁴. Parotid abscess must be differentiated from other causes of parotid enlargement such as benign and malignant tumor or sialolithiasis. CT Scan and ultrasound can be used as diagnostic modalities of parotid abscess. It can identify not only size and location of abscess, but also anatomical proximity to vital structures like great vessels and airway². Ultrasound has the advantage of being noninvasive, easy handling, fast, and less cost⁶. However, radiological examination was not performed in this case because patient represented the "classical" signs of parotid abscess. Fluctuation over the parotid area was spesific to abscess formation in this case.

The most common pathogen of parotid abscess is *Staphylococcus aureus*, followed by *Streptococcus* species and Gram-negative bacilli^{2,6,7,8}. Management strategies included pus drainage and appropriate broad-spectrum antibiotics therapy⁹. Initial second line drugs with amoxicillin/clavulanic acid or clindamycin plus 3rd or 4th generation cephalosporin in selected patients who presented with a high incidence of bacterial Gram-negative infection^{3,10}. The preferred approach was a small vertical preauricular incision over the abscess sack or fluctuated area³. This incision provided a favourable result, with no cases of reformation of the pocket, less complications such as facial nerve injury and no esthetic deformities. Adequate treatment of parotid abscess can be resulted good prognosis.

V. CONCLUSIONS

Parotid abscess is a rare clinical condition and ideally required radiologic examinations for establish its diagnosis. The proper management such as administration of broad-spectrum antibiotics and surgical drainage provide a good result.

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