SUBMENTAL ABSCESS THAT EXTEND TO BILATERAL SUBMANDIBULAR REGION AFTER TREATMENT OF SYMPHYSIS MANDIBLE FRACTURE : A CASE REPORT

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INTRODUCTION

Abscess is an acute localized infection with inflammation, swelling, tenderness on palpation or local tissue damage and can occur at any age. One of the orofacial abscess rare causes is open mandibular fracture or infected trauma. The cardinal causes of orofacial infections are non-vital teeth, pericoronitis (due to a semi-impacted mandibular tooth), tooth extractions, periapical granulomas that cannot be treated, and infected cysts. Rarer causes include post operative trauma, defects due to fracture, salivary gland or lymph node lesions and infection as a result of local anesthesia.

The purpose of this study was to evaluate the management of post traumatic mandibular fractures to prevent infection or abscess and to describe the pathophysiology of an abscess from trauma.

CASE REPORT

A 21 year old male patient with no past history of major illness came to Hasan Sadikin Hospital Bandung with swelling in the lower jaw followed by difficult of swallowing and tenderness. A month before admission, the patient had an accident and symphysis of mandible was fractured. In emergency room, he received interdental wiring treatment, but due to poor oral hygiene which caused by uncooperative behavior in maintaining oral hygiene, the fracture became infected and an abscess occured. The abscess was surgical drained extraorally and mounted with through and through penrose drain at submental and bilateral submandible region.

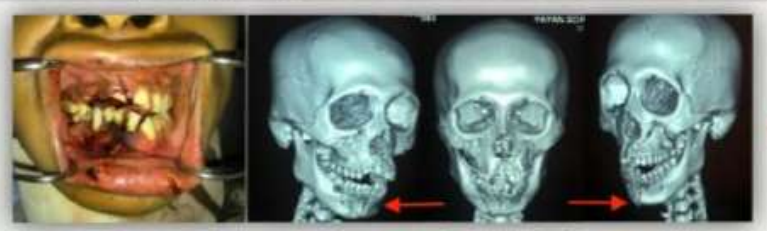

Fig 1. Clinical picture and 3D CT scan of mandibular fracture

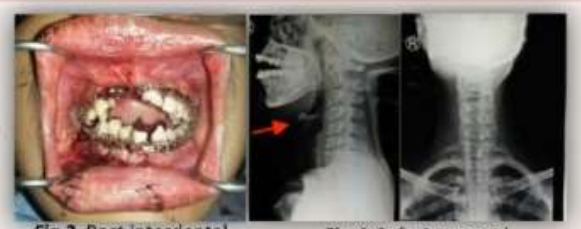

Fig 2. Post interdental wiring treatment

Fig 4. Soft tissue neck

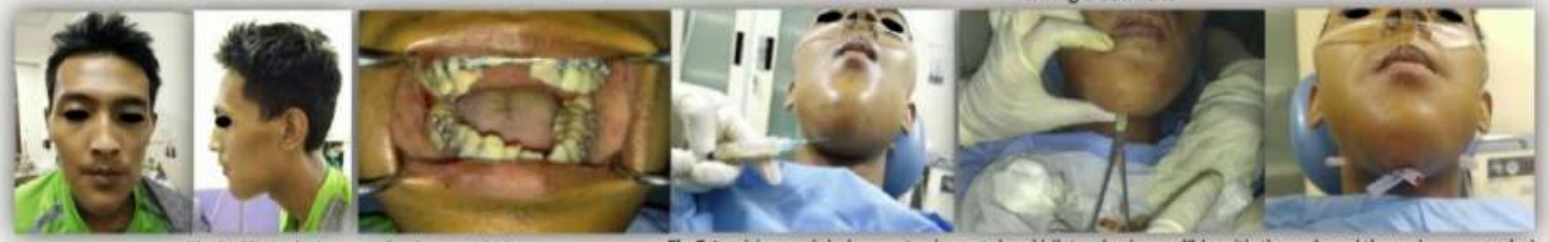

Fig 3. Clinical picture of submental abscess

Fig 5. Inscision and drainage at submental and bilateral submandible with through and through penrose drain

DISCUSSION

Infection represents the most common complication of jaw fractures. [1,4,5,7] Oral hygiene is a key factor to eliminate and prevent post-operative infection. Pre-surgical and post-surgical contamination of the fractured site, is greatly influenced by the patient dental condition and the oral hygiene is influenced by patient compliance, which would affect the treatment type to be used. [8]

Zacharias et.al reported that comminution, gross displacement, and compound fractures are all factors that can contribute to the development of infection in mandibular fractures. Virulence and microorganism, host resistance are the most important patient-related factors linked to the development of infection. [8] The ideal handling of teeth in fracture lines has always been a controversial issue. Teeth involved in the fracture line may often be of great value in repositioning of the fracture. [4,6,7,8,10] Those are become the consideration factor for emergency room operator to treat the mandibular fracture case, with maintaining the teeth on its fracture line by using interdental wiring fixation.

In this case, either the bad oral hygiene caused by patients bad complienced on post treatment instruction, the comminuted pipe of mandibular fracture and the absence of teeth at the fracture line can also cause the infection. The management of trauma infection site is by incision and drainage, and administered of antibiotics.

CONCLUSION

Trauma of mandible fracture is a rare cause of an abscess in the orofacial region. The situation becomes worse if the area of the mandibular fractures is infected. Post-traumatic care is required to prevent the occurrence of the abscess. Pathophysiology of the case is described in a short discussion on the pathophysiology of abscess due to infected mandibular fracture.

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