ABSTRACT

Introduction: Temporomandibular joint (TMJ) ankylosis is one of the most common TMJ disorders encountered in the patients caused by trauma. Management of the TMJ ankylosis is mainly by surgical intervention but still leaving a considerable challenge because of the high recurrence rate. Various methods are available for surgical correction. Gap arthroplasty without interpositional material has gradually been abandoned due to the high risk of recurrence. The temporalis myofascial flap is the most frequently used material, however, presents some problems such as donor site morbidity, chronic cephalgia, and trismus. A variety of interposition materials have been used to prevent recurrence after arthroplasty procedure. The aim of this study is to review the efficacy of mersilene mesh interpositional arthroplasty in the management of TMJ bony ankylosis.

Materials and Methods: A retrospective study carried out on 4 patients of TMJ ankylosis. All patients had the complaint of inability to open the mouth following trauma. Diagnosis was based on clinical assessment, OPG views and CT scan. All patients were treated through mersilene mesh interpositional arthroplasty procedure at Universitas Airlangga Hospital and Dr. Soetomo General Hospital Indonesia from January 2016 to April 2019 and evaluated with a follow-up of 6 months to 1 year for the functional stability of TMJ.

Results: The mean age of the patients was 26 years and the mean duration of ankylosis was 41 months. The average of preoperative mouth opening was 7.5 mm. The patients have achieved inter-incisal opening of 30-40 mm and were no complications for 6 months to 1 year postoperatively.

Conclusions: Mersilene mesh interpositional arthroplasty is a very reliable surgical management of TMJ bony ankylosis to gain maximum mouth opening and to prevent recurrences. Comprehensive rehabilitation is required to prevent recurrence of ankylosis.

Keywords : temporomandibular joint, ankylosis, interpositional arthroplasty, mersilene mesh