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Can arthrocentesis help reduce the displaced disc in patients with closed lock of the temporomandibular joint? A case review

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Abstract

Arthrocentesis (joint lavage and lysis) and hydraulic distension of the temporomandibular joint have been described as effective options for reducing joint pain and improving function in patients with limited mouth opening (closed lock) due to disc displacement without reduction, fundamentally in the acute phase of the disorder. Despite controversy, some studies suggest that in addition to improving the range of opening and reducing joint pain, the disc can also be reduced in some cases.

The present study was carried out to determine whether arthrocentesis could reduce the displaced disc in a woman with 6 weeks of closed lock, and to assess its efficacy in improving mouth opening and reducing joint pain.

Key words: Arthrocentesis, closed lock, disc displacement, limited mouth opening, disc reduction, disc recapture.

Introduction

Closed lock of the temporomandibular joint (TMJ) is the result of a usually anterior or anteromedially displaced joint disc that is not reducible and acts as an obstacle against anterior displacement of the mandibular condyle (1). The clinical signs of this disorder are restricted anterior displacement of the mandible, the absence of joint sounds (clicks), deflection towards the affected side on opening the mouth, limitation of lateral motion towards the contralateral side, and the restriction of protrusion movements, with mandibular displacement towards the

affected side. In acute cases, joint pain is noted in response to palpation and during opening of the mouth (2). The diagnostic imaging technique of choice is magnetic resonance imaging (MRI), where closed lock is seen as disc displacement without reduction (DDwoR) with the mouth open (1,3).

Arthrocentesis (joint lavage and lysis) is used to cleanse and break up small adhesions in the superior joint space (SJS), and hydraulic distension of the TMJ in turn aims to insufflate the SJS to reduce the intra-articular pressure. Both techniques have been found to be effective.