

Technical note

Single needle arthrocentesis

Khaleeq-Ur Rehman^{*}, Timothy Hall

Department of Oral and Maxillofacial Surgery, Worcestershire Royal Hospital, Charles Hastings Way, Worcester, Worcestershire, WR5 1DD, United Kingdom

Accepted 24 September 2008

Available online 1 November 2008

Keywords: Temporomandibular Joint; Arthrocentesis; Singal Cannula

Disorders of the temporomandibular joint (TMJ) secondary to internal derangements of the joint are common. Patients often present with pain, clicking, or locking, or both, of the joint, and management can be challenging. The conditions are usually managed conservatively by jaw exercises, occlusal splints, and the use of simple drugs such as tricyclic antidepressants. If all these fail, patients are offered minimally invasive procedures such as arthrocentesis and manipulation of the joint.

Arthrocentesis of the TMJ was first described by Nitzan et al. in 1991, and involves irrigation of the upper joint space and manipulation of the joint, which releases the adhesions and so improves function.¹ Irrigation also washes away inflammatory mediators that are released after manipulation of the joint. The procedure involves insertion of two large cannulas into the upper joint space to allow irrigation with normal saline, and this is followed by infiltration of an anaesthetic agent such as bupivacaine or lignocaine. Finally the joint is injected with a steroid or an anti-inflammatory agent.

The procedure has traditionally used one inflow and one outflow cannula to allow for irrigation of the joint. The insertion of two cannulas can be quite challenging, so we suggest using a single Shepard cannula (Normed, Germany) (Fig. 1), which has two ports and two lumens, and



Fig. 1. A Shepard cannula.



Fig. 2. A Shepard cannula in place.

^{*} Corresponding author. 15 Chapel Street, Lye, Stourbridge, West Midlands, DY9 8BT, United Kingdom. Tel.: +01905 763 333.

E-mail address: khaleeq@doctors.org.uk (K.-U. Rehman).

this allows both irrigation and washout through the same device (Fig. 2). This makes the procedure much easier, and improves success rate. We have used this cannula for more than 10 years for over 100 procedures with no complications.

Reference

1. Nitzan DW, Dolwick MF, Martinez GA. Temporomandibular joint arthrocentesis: a simplified treatment for severe limitation of mouth opening. *J Oral Maxillofac Surg* 1991;**49**:1163–70.