

Technical note

Intraoral high condylotomy for a case of chronic mandibular dislocation

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History

A 27-year-old man tripped and fell, striking the right side of his face on the floor. Despite his immediate facial asymmetry and abnormal bite, the diagnosis of dislocation was not made for 4 months. Repeated attempts to reduce it manually had failed, and he was subsequently referred to us. On examination there was deviation of the jaw towards the left with restricted opening (Fig. 1). Chronic dislocation of right condyle was confirmed by panoramic radiography and computed tomography (Fig. 2). Our initial attempt at manual reduction under local anaesthesia was unsuccessful. Finally, the right temporomandibular joint (TMJ) was exposed through a transoral approach for a high condylotomy.

Technique of operation

Under general anaesthesia a buccal incision was made from the level of the mandibular second molar to the level of the maxillary teeth. Coronoidectomy was begun by cutting the bone at the level of the mandibular notch using a drill. We dissected subperiosteally along the condylar neck and head until the mandibular condyle had been fully exposed. Small

malleable retractors were inserted to protect the soft tissue medially and laterally. The high condylotomy cut was made with a drill from anterior to posterior, and finally completed with an osteotome. The remaining sharp edges in the distal segment of the condyle were reshaped and smoothed, after haemostasis had been achieved. The incision was sutured with 3/0 sutures. The postoperative radiograph showed the displaced condylar head (Fig. 3). Postoperatively the patient achieved good occlusion and function (Fig. 4).

Discussion

Closed subcondylar condylotomy using a Gigli saw has been successfully used since 1954¹ in the treatment of dysfunction of the TMJ, but there is a danger of serious postoperative complications. Moose² used a mesial approach for intraoral condylotomy, whereas Shevel³ favoured the lateral approach. Recently Deng et al.⁴ presented the lateral approach for transoral condylectomy, and their complications ranged from swelling, angular chelitis, limitation of mouth opening, and malocclusion. Transoral condylotomy was reported by Matsushita et al.⁵ for an anterosuperior dislocation of the mandibular condyle into the temporal fossa, but they abandoned the procedure as the dislocation could not be reduced. In all other instances the extraoral approach has been used to treat various dislocations after repeated attempts at closed reduction had failed.

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Fig. 1. Preoperative intraoral view showing how the bite had shifted.

A dislocated condyle is positioned anterior to the articular eminence, where it is comparatively easy to gain access. Coronoidectomy was necessary because the approach is directly to the anterior part of the dislocated condyle, and it can be fixed back if required. Wide retraction both medially and laterally is avoided. The patient developed only mild angular cheilitis, and all the other complications of the lateral approach were avoided. The patient did not require postoperative intermaxillary fixation, even though the eyelets were in place. The mandible came into correct occlusion with neuromuscular guidance. The patient regained full function of both TMJs postoperatively. He was subsequently followed up for 1 year during which time he maintained good occlusion and a full range of movement of the jaw.



Fig. 2. Orthopantomograph showing dislocation of the right condylar head.



Fig. 3. Postoperative orthopantomograph showing dislocated portion of condylar head.



Fig. 4. Postoperative occlusion.

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