

Temporomandibular joint dislocation after endoscopy: A rare complication[☆]



Luxación de la articulación temporomandibular después de una endoscopia: una complicación infrecuente

To the Editor,

Upper gastrointestinal (GI) endoscopy is a technique with a low complication rate. We present the case of a patient who, immediately after an upper GI endoscopy, presented dislocation of the left temporomandibular joint (TMJ), which was resolved with manual reduction.

Clinical case

The patient was a 57-year-old woman with a history of a single episode of TMJ dislocation during a dental procedure. Upper GI endoscopy was performed with a duodenoscope for radiological suspicion of ampulloma; the procedure was carried out in left lateral decubitus position under sedation with propofol (total dose 90 mg), and was uneventful. Immediately after completion of the test (less than 5 min), the patient found she was unable to close her mouth, and presented asymmetric pseudo-prognathism (Fig. 1). Anterior dislocation of the left TMJ was diagnosed. After sublingual administration of 5 mg of diazepam, the dislocation was corrected by manual reduction. The patient recovered without complications and was discharged home.

Discussion

Upper GI endoscopy is a technique with a low rate of complications (between 0.01% and 0.5%)^{1,2}; among these, TMJ dislocation has rarely been reported.³⁻⁷

Dislocation of the TMJ is the permanent loss of the normal articular relationship between the temporal eminence and the mandibular condyle, which prevents the mandible from returning to the closed position. The dislocation can be anterior (more common) or posterior.

The real incidence of TMJ dislocation following an endoscopic procedure is so far unknown. Risk factors include a personal history of previous dislocations or subluxations, ligamentous laxity and occlusal mandibular disorders.³ The causes are varied: iatrogenic (following dental procedures, intubation, etc.), spontaneous (yawning, laughing, etc.), trauma, and certain systemic diseases.⁸

Acute dislocation of the TMJ can be reduced by performing the Nelaton manoeuvre, which involves intraoral digital traction following the administration of a muscle relaxant.⁸



Figure 1 Left unilateral temporomandibular dislocation. The patient's inability to close her mouth can be observed.

In order to perform this manoeuvre, the patient should be placed in a seated position with his or her head and back against a firm surface. Standing in front of the patient, the clinician places his or her thumbs on the mandible at the level of the molars with the other fingers on the lower edge of the mandible. The condyle is moved into position by exerting a downwards and then backwards movement on the mandible.⁹ Local anaesthesia can be administered in some cases to block the auriculotemporal nerve. Injection of intra-articular anaesthesia in the empty glenoid cavity minimizes myospasm prior to the digital manipulation.¹⁰

In summary, it is clinically important for endoscopists to recognize this complication, since it can be relatively simply and easily resolved.

References

1. Silvius SE, Nebel O, Rogers G. Endoscopic complications. Results of the 1974 American Society for Gastrointestinal Endoscopy Survey. *JAMA*. 1976;235:928-30.
2. Sieg A, Hachmoeller-Eisenbach U, Eisenbach T. Prospective evaluation of complications in outpatient GI endoscopy: a survey among German gastroenterologists. *Gastrointest Endosc*. 2001;53:620-7.
3. Lorenzo D, Boissier F, Prost A, Gallois C, Faisy C. Bilateral temporomandibular joint dislocation after upper gastrointestinal endoscopy in an intensive care unit patient: a rare complication. *Endoscopy*. 2014;46 Suppl. 1:UCTN:E538.
4. Lacy PD, Lee JM, O'Morain CA. Temporomandibular joint dislocation: an unusual complication of upper gastrointestinal endoscopy. *Am J Gastroenterol*. 2000;95:3653-4.
5. Mangi Q, Ridgway PF, Ibrahim Z, Evoy D. Dislocation of the mandible. *Surg Endosc*. 2004;18:554-6.
6. Nijhawan S, Nepalia S. Dislocation of temporomandibular joint after upper gastrointestinal endoscopy. *Trop Gastroenterol*. 1994;15:232.
7. Savas MC, Gulsen MT, Kadayifci A. Habitual dislocation of the temporomandibular joint during upper endoscopy. *Gastrointest Endosc*. 2004;60:325.

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8. Liddell A, Pérez E. Temporomandibular joint dislocation. *Oral Maxillofac Surg Clin North Am.* 2015;27:125–36.
9. Salmerón Escobar JI, Verdaguer Martin JJ, Del Amo A. Patología quirúrgica de los trastornos funcionales de la articulación temporomandibular. In: Navarro C, editor. *Cirugía oral.* Arán Ediciones; 2008. p. 447–60.
10. Littler BO. The role of local anaesthesia in the reduction of long-standing dislocation of the temporo-mandibular joint. *Br J Oral Surg.* 1980;18:81–5.

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