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Case Report

Jaw Dislocation: A Rare Complication of Upper Gastrointestinal Endoscopy

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Abstract

Although upper endoscopy complications like jaw dislocation are extremely rare. A 45-year-old woman underwent upper endoscopy to evaluate her significant weight loss, epigastric pain and persistent IDA. Immediately after the procedure, Jaw dislocation developed with immediate transfer to the ER and management. This report also reviews and discusses this complication.

Keywords: Temporomandibular joint dislocation; Upper endoscopy; Complications

Introduction

Dislocation of the Temporal Mandibular Joint (TMJ), either bilaterally or unilaterally can occur Mandibular condyle movement away from the temporal bone's articular surface (the glenoid fossa). There can be lateral, superior, anterior, posterior, and superior mandibular dislocations.

Dislocation of the temporomandibular joint has frequently been linked to anesthetic and intubation. The incidence of TMJ dysfunction following endotracheal intubation is reported to be 5% [1]. However, gastroenterologists do not frequently detect Temporomandibular Joint (TMJ) dislocation as a potential consequence of Esophagogastroduodenoscopy (EGD).

In this report, we describe a patient who experienced temporomandibular dislocation following an EGD and talk about how to recognize this complication, its etiology, risk factors, and alternative diagnoses for jaw pain that followed an endoscopy.

Case Presentation

In our gastrointestinal clinic, a 45-year-old lady presented with marked weight loss, epigastric pain, repeated vomiting and nausea, persistent iron deficiency anemia of 5 months duration. She had sought prior medical evaluation, but without prior upper endoscopy, she received only iron therapy, PPIs, and prokinetics with no significant improvement. Under local anesthesia, an upper endoscopy was carried out in the left lateral decubitus posture.

A large gastric mass in greater curvature obstructing 1/2 of the lumen was found and biopsies were taken (Figure 1). The patient had considerable lower facial pain right away after the procedure.

She was unable to close her mouth due to a spasm across both masseter muscles, which were revealed during an examination. Further history was obtained and she reported three previous episodes of jaw dislocation during dental procedures years ago, with a family history of similar conditions. An urgent mandible x-ray was done showing bilateral anterior jaw dislocation (Figure 2). She was referred to the emergency department for management given the severity of her pain and the inability to close her mouth. The patient received analgesics for pain relief in the emergency room. The maxillofacial surgeon manually reduced the dislocation to repair it.

She was fitted with a jaw strap and sent home. She spent four days in the jaw strap and on a soft diet. Over the following days, she was constantly watched and quickly recovered to her baseline. Notably, her endoscopy's biopsy results confirmed the diagnosis of stomach adenocarcinoma.

Which will require the patient to undergo MSCT of the chest, abdomen, and pelvis with IV contrast to evaluate the staging and further management.

Discussion

The rate of problems following upper GI endoscopy is minimal (between 0.01% and 0.5%) [2]. TMJ dislocation is the least frequently reported among these [3-5]. Jaw dislocations can occur in four

Figure 1: Gastric mass.

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Figure 2: Anterior displacement of the mandible.

different positions: posterior, anterior, superior, and lateral. The anterior position is the most typical; the other forms are uncommon. If the mouth opens wide, anterior dislocation causes the lower jaw to slip forward. Bilateral or unilateral dislocations of this nature are both possible [6].

The causes of anterior TMJ dislocation might vary widely. Dislocations of the superior and posterior joints are uncommon and virtually often brought on by trauma and fracture. A non-traumatic cause or mandibular trauma might result in anterior dislocation. Any activity that causes the jaw to expand forcefully and excessively, such as yawning or convulsions, as well as underlying anatomic factors including ligamentous laxity, aberrant anatomy, or connective tissue abnormalities, can produce an atraumatic dislocation. The causes of laughter, yawning, singing, and vomiting are a few examples [7]. Stonic responses (e.g., tetanus). Dental procedures, endotracheal intubation, and bronchoscopy are examples of iatrogenic causes [8]. The most frequent cause of dislocation is acute face trauma [9,10].

Identification of potential causes of the dislocations and the possibility of recurrence depends on understanding the risk factors for TMJ dislocation. Prior dislocations, structural or anatomical deficiencies, connective tissue conditions that affect stability (such as Marfan syndrome or Ehler-Danlos syndrome), neurodegenerative or neuro dysfunctional conditions (such as Huntington disease, multiple sclerosis, or epilepsy), and advancing age are some of them [11].

Acute stroke and pathologic fracture should both be taken into consideration in the appropriate clinical setting as they are both members of the differential diagnosis [12,13]. While a clinical examination is used to make the diagnosis of TMJ dislocation, radiographic imaging should always be done to rule out any kind of mandibular fracture. Delaying reduction puts you at higher risk of getting muscle spasms, which makes it harder to reduce the dislocation [14].

The TMJ joints are painful and extremely sore when they are dislocated acutely. If neglected for more than 14 days, fibrosis and even fractures become more obvious and may necessitate surgical intervention [11,12].

Conclusion

It is currently unknown what the actual incidence of TMJ dislocation after an endoscopic surgery is. A personal history of prior dislocations or subluxations, ligamentous suppleness, and occlusal mandibular abnormalities are risk factors.

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