Arytenoid dislocation following upper gastrointestinal endoscopy

A 46-year-old female teacher presented for upper gastrointestinal endoscopy. A standard Olympus endoscope (GIF H190, Olympus, Center Valley, Pennsylvania, USA) was used for evaluation of gastritis. After 12 hours, the patient developed hoarseness, throat pain, and swelling. A computed tomography (CT) scan, barium swallow, and laryngeal electromyography (LEMG) studies showed normal findings. Strobovideolaryngoscopy showed a higher left vocal cord with axis deviation and persistent glottal gap of 1 mm (Fig. 1). After 2 months the patient underwent laryngoplasty with micronized dermis injection and reduction of the left arytenoid dislocation. Dysphonia gradually improved over 6 months with voice therapy. Signs and symptoms of arytenoid dislocation include hoarseness, breathiness, vocal fatigue, aphonia, as well as dysphagia. Diabetes mellitus and renal failure can weaken the arytenoid joint [1], and use of airway tools such as a misplaced laryngoscope, laryngeal mask airways [2] and transesophageal echocardiography (TEE) probe [3] has also resulted in arytenoid dislocations. In the present case, the initial insertion of the gastroscope was not carried out under direct visualization, thus resulting in traumatic arytenoid dislocation. An unrecognized cricoarytenoid joint dislocation is often mistaken for vocal fold paralysis, and treatment is delayed. Direct laryngoscopy and CT can be useful in the diagnosis of patients with arytenoid dislocation. LEMG evaluates innervation of the laryngeal muscles, distinguishing between paralysis and dislocation. An invaluable tool for diagnosis is strobovideolaryngoscopy [4], which provides a magnified slow-motion view of the vocal cords.

Successful treatment is frequently predicated on early intervention. Voice therapy is only indicated when hoarseness has an etiologic diagnosis and is an important adjunct for patients [5]. Surgical correction is the treatment of choice, with botulinum toxin injections for laryngeal re-balancing. Gastroenterologists must add arytenoid dislocation to the list of potential complications that can occur with gastrointestinal endoscopy. Patients complaining of hoarseness or other neck symptoms after an upper gastrointestinal endoscopy should undergo upper airway evaluation for early diagnosis and treatment.

Afonso A et al. Arytenoid dislocation following upper gastrointestinal endoscopy... Endoscopy 2011; 43: E368

Competing interests: Dr. P. Woo is a compensated speaker for LifeCell Corporation.

A. Afonso1, P. Woo2, A. Reed1
1 Department of Anesthesiology, Mount Sinai Hospital, New York, USA
2 Department of Otolaryngology, Mount Sinai Hospital, New York, USA

Reference
2 Cros AM, Piti R, Conil C et al. Severe dysphonia after use of a laryngeal mask airway. Anesthesiology 1997; 86 (2): 498 – 500

Bibliography
Endoscopy 2011; 43: E368
© Georg Thieme Verlag KG Stuttgart · New York · ISSN 0013-726X

Corresponding author
A. Afonso
Mount Sinai Medical Center
Department of Anesthesiology
One Gustave L. Levy Place
Box 1010
New York
NY 10029-6574
USA
Fax: +212-426-2009
Anoushka.Afonso@mssm.edu