

Zenker's diverticulum

A rare cause of dysphagia

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ABSTRACT

رتج زنكر أو الجيب البلعومي عبارة عن فتق الأغشية المخاطية البلعومية من خلال خلل يقع في الجزء الخلفي لجدار البلعوم، في منطقة طبيعية ضعيفة بين جزئي العضلتين القابضتين السفليتين. إن نسبة حدوث الجيب البلعومي بالنسبة للمرضى الذين يراجعون اختصاصي الأذن والأنف والحنجرة كانت 0.47 حالة لكل 100,000 حالة (مئة ألف حالة). أن رتج زنكر قد تكون سبباً نادراً لعسر البلع في المرضى الكهول، مصاحبةً للقلس، السعال المزمن، السفت و فقدان الوزن. إن سبب رتج زنكر بقي غير معروف ولكن النظريات تركز على شذوذ تركيبية أو فلسجية للعضلة الحلقية البلعومية. رتج زنكر يجب أن يكون في الاعتبار كأحد الأسباب النادرة لعسر البلع في الكهول وأن طريقة العلاج تعتمد على الخبرة الشخصية وتوفر التسهيلات.

Zenker's diverticulum or pharyngeal pouch is a herniation of pharyngeal mucosa through a defect located on the posterior pharyngeal wall, in an area of natural weakness between the 2 parts of the inferior constrictor muscles. The incidence of presentation of pharyngeal pouch to an ear, nose, throat (ENT) specialist was estimated as 0.47 cases per 100,000 per year. It could be a rare cause of dysphagia in elderly patients, associated with regurgitation, chronic cough, aspiration, and weight loss. The etiology still unknown, but theories focus upon structural or physiological disorders of the cricopharyngeus muscle. Zenker's diverticulum should be considered as one of the rare causes of dysphagia in elderly patients, and the treatment modalities depend on individual experience and availability of the facilities.

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In 1769, Ludlow published the earliest description of a mucosal pouch protruding through the posterior wall of the pharynx. Zenker, in 1877, described 5 of his own cases and 22 cases drawn from other sources.¹ A pharyngeal pouch is a herniation of pharyngeal mucosa through a defect in the posterior pharyngeal wall.² Pharyngeal pouch occurs most commonly in elderly patients (>60 years) and typical symptoms include dysphagia, regurgitation, chronic cough, aspiration, and weight loss. The etiology still remaining unknown but theories focus upon a structural or physiological disorders of the cricopharyngeus muscle.³ The location on the posterior wall of the pharynx through an area of natural weakness between the 2 parts of inferior constrictor muscles. This area was described by Killian in 1908 and was referred to as Killian's dehiscence. The condition of pharyngeal pouch affects Caucasians and is rare in Asian and Afro-Caribbean races.²

A diagnosis is easily established on barium studies. There is different modality of treatment, the primary is surgical via an endoscopic or external cervical approach and it should include a cricopharyngeal muscle myotomy. The purpose of this case report was to presents a rare and probably the first reported Zenker's diverticulum that cause dysphagia as a chief complaining in Al-Anbar Governate and Iraq.

Case Report. A 65-year-old male patient from Al-Fallujah city presented to us on December 2011 complaining from dysphagia for the last 2 years, with regurgitation of food and repeated chest infection. The condition became worse and progressive especially in the last 2 months. He consulted different specialty clinics and took different medications (corticosteroids, antibiotics, bronchodilators, antitussives, anti-acids, proton pump inhibitors) without clear diagnosis. He developed proximal myopathy due to excessive use of steroids, and weight loss due to dysphagia. On examination, the

patient looked ill, depressed, with difficult on walking and mild dyspnea, his vital signs were within normal, chest examinations revealed scattered crepitations on both lungs, abdominal examination was unremarkable, lower limbs showed bilateral atrophy of quadriceps, and hamstring muscles secondary to steroid abuse.

Neck examination revealed not pulsating swelling in the right upper anterior triangle of the neck with normal skin color, there was gargling sensation on compression of the mass and there was no regional lymphadenopathy. Barium swallow showed typical teapot appearance of pharyngeal pouch (Figure 1).

We informed the patient on the diagnosis and treatment options, informed consent was taken, and the patient was prepared for surgical excision of the diverticulum through external approach namely, diverticulectomy; endoscopic interference was not the choice due to poor facilities. He was seen by anesthesiologist and prepared for general anesthesia. A nasogastric tube was introduced then a collar incision on the level of the cricoids was performed, left hemithyroidectomy was carried out to get access to the pouch, exploration of the pharynx revealed very big pharyngeal pouch (8x9cm), which was excised and its neck was sutured in 2 layers followed by cricopharyngeal myotomy (Figure 2). Histopathological study showed epithelial lining of stratified squamous epithelium and submucosa with no malignancy.

Postoperative care continued for 3 weeks on nasogastric feeding because he developed pharyngocutaneous fistula, which was closed spontaneously after antibiotic administration, and dressing. Barium swallow after removal of nasogastric tube showed very nice passage of the contrast in the esophagus.

Discussion. The incidence of presentation of pharyngeal pouch to an ear, nose, throat (ENT) specialist was estimated as 0.47 cases per 100,000 per year by Juby.² This case presents a rare and probably the first reported Zenker's diverticulum in Al-Anbar Governate and in Iraq that presented with dysphagia as a chief complain. No reported case of Zenker diverticulum in Iraq had been published in Medline. The treatment of choice for an established pharyngeal pouch is surgical and the approach may be open surgical diverticulectomy and diverticulopexy with myotomy or myotomy alone using flexible or rigid endoscopes.⁴ The model of treatment differs from case to another, and the patient was aware of the potential risks and benefits of the operation. However, in some situations such as in a



Figure 1 - Barium swallow shows the teapot appearance of Zenker's diverticulum (arrow).

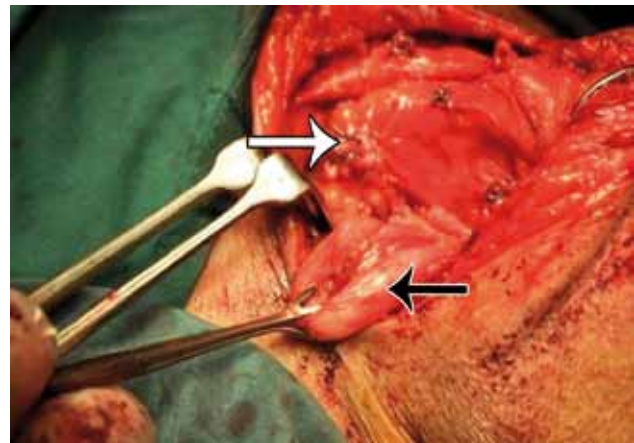


Figure 2 - Operative photograph revealed Zenker's diverticulum (black arrow) and pedicle of the left upper pole of thyroid gland (white arrow).

chronically ill elderly patient with minimal symptoms, no treatment is indicated except careful follow up. The surgical procedures used to treat pharyngeal pouches vary widely.

The preferred treatment depends on individual experience and availability of facilities. Endoscopic stapling diverticulectomy is becoming increasingly common and is the treatment of choice in many centers,^{5,6} with the potential risk of a subclinical carcinoma being missed.⁷⁻⁹

In conclusion, Zenker's diverticulum should be considered as one of the rare causes of dysphagia in elderly patients, and the treatment modality depends on individual experience and availability of the facilities.

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