INTRODUCTION
Pharyngeal pouch is a rare disorder. Prevalence in high-risk countries is 2 cases per 100,000 people.\(^1\) It has a male-to-female ratio of 1.5:1 and is observed almost exclusively in older individuals.\(^1\) Killian's dehiscence is a small gap between the two bellies of the inferior constrictor muscle. It is clinically important as a diverticulum can form when a 'balloon' of mucosa becomes trapped outside the pharyngeal boundaries. Food or other materials may stagnate there, which may lead to infection.\(^2\) The pharyngeal pouch usually present in the upper quadrant of the neck as recurrent swelling, which subsides on pressure or as regurgitation of food or foul smell in the mouth.

We are reporting the case in which there was no such history of regurgitation and secondly the mass was in the lower quadrant of the neck and considered to be a thyroid mass.

CASE REPORT
A 60-year male presented with having a mass in the lower third of the neck for the last 4 years, which gradually increased in size. It was more of a midline mass extending to the left side of the neck, about 05 cm in the greatest dimension. It was mobile on swallowing and immobile on protrusion of the tongue, hard to touch, cystic in consistency with restricted mobility in either axis. There was no history of pain, hoarseness or any other nerve palsy. Patient also had a history of inflation of pharyngeal musculature in the left upper third of the neck, which used to became more prominent on swallowing or by performing Valsalva maneuver. This phenomenon was noticed by the patient 6 months ago. On detailed clinical examination, there was no communication between the two masses. Patient did not give history of blowing trumpet or any other voice abuse and had normal vital signs and rest of the systemic examination was also unremarkable.

Routine blood and urine examinations were normal. Thyroid scan was not done because thyroid function tests were normal. Keeping in mind the inflation of pharyngeal musculature in the upper third of the neck, barium swallow was advised which revealed left sided pharyngeal diverticulum at the interphase of hypopharynx and esophagus, extending unto the upper cornu of the thyroid cartilage (Figure 1). Ultrasound of the neck revealed replacement of the left thyroid lobe by a complex cystic lesion.

Viewing the scenario of the patient and investigations, a pathology in the thyroid gland associated with pharyngeal diverticulum was suspected and exploration of the neck was planned under general anesthesia. A thyroidectomy incision was made with a plan to extend...
the incision upwards to reach the pharyngeal pouch. Skin flaps were raised, strap muscles dissected and mass was approached. Pre-operatively, the mass in the lower quadrant of the neck was about tennis ball size as well as hard and attached to the surrounding structures including thyroid gland (Figure 2). Intraluminal pressure was increased in the pharynx during surgery by putting a separate endotracheal tube in the pharynx and inflating it. The weakness in the pharyngeal musculature was defined along with the pharyngeal pouch. The mass seemed to have no connection with the primary pouch thus it was dissected free by blunt dissection from the thyroid lobe and surrounding structures and delivered. The pharyngeal pouch was cleared and diverticulectomy was performed. Musculature of pharynx was augmented with vicryl sutures and cricopharyngeal myotomy was done. The mass was opened and found to contain straw coloured fluid and food particles. The sample was sent for histopathology, which reported that the mass to be a pharyngeal pouch having no malignancy. Nasogastric (N/G) tube was passed, drain was placed and wound was closed in layers. Postoperative recovery was smooth thus N/G tube was removed after 24 hours, drain was removed after 48 hours and patient was discharged. Patient reported back for follow-up after 7 days. Wound was healthy so stitches were removed and patient was asked to report after one month. Patient was followed-up for 3 months and had no complaints.

DISCUSSION

Zenker's Diverticulum (ZD) was first described in 1769 by Ludlow. Zenker and Von Ziemssen further characterized this entity in 1877. The aetiology of Zenker's diverticulum remains unknown but theories centre upon a structural or physiological abnormality of the cricopharyngeus.3

It usually presents after the age of 50 years, like in this case. It usually presents in the combination of symptoms like, dysphagia, regurgitation of undigested food hours after eating, sensation of food sticking in the throat, special maneuvers to dislodge food, coughing after eating, aspiration of organic material, unexplained weight loss, fetor ex ore and borborygmi in the neck. Symptoms may last from months to years. This patient presented with a slowly growing midline neck mass over the last 4 years. There was no history of food regurgitation which he could recall. Radiology plays an important part in the diagnosis of Zenker's diverticulum. Barium swallow and CT scan are of great help in the diagnosis, as in this case.

These patients can be managed conservatively or a surgical approach may be adapted. With cricopharyngeal achalasia, botulinum toxin may be used to provide temporary relief of dysphagia.4 Symptomatic patients, who are poor surgical risks and have small Zenker's diverticula, may be treated satisfactorily by this method.

Amongst current surgical therapeutic options, cricopharyngeal myotomy is the most common, combined with other more definitive procedures such as endoscopic diverticulotomy with cautery, laser or stapler. The main aim is to transect the party wall between the esophagus and the diverticulum. An endoscopic approach was introduced in 1917 and then in 1958.5 Complications such as mediastinitis and abscess formation did not let it gain widespread acceptance. A cautery unit was used to perform the diverticulotomy. During the 1980s, the carbon dioxide laser and potassium-titanyl-phosphate (KTP) laser were used to perform the incision. The carbon dioxide laser technique remains a favoured procedure in both Europe and the United States.6 The stapler technique consists of adhering the mucosal edges by stapling them together while cutting across the "party wall" at the same time. It is particularly useful for small (< 2 cm) and moderate (2 - 4 cm) diverticula because a stapler may not be able to satisfactorily grasp the "party wall" between the esophagus and diverticulum. The risk of cervical emphysema is higher with the laser technique over the stapling technique. The ultrasonic scalpel is an alternate tool for transecting the "party wall" between oesophagus and diverticulum. Fama recently reported the first study with this device. Further corroborative studies are awaited.7 Removal by external cervical incision followed by cricopharyngeal myotomy can also be done. This approach is regarded by some authors as causing more mortality with longer hospital stay and delayed oral feeding.

In this case, external cervical approach was used and the thyroid incision was extended upwards so as to remove both masses in one incision. Compared with the standard open technique, the endoscopic stapling technique results in a statistically significant shorter operative time, short hospital stay, and short time to
resume oral feedings; but long-term functional results are better after surgical diverticulectomy with myotomy than after endoscopic staple esophagodiverticulostomy. Moreover, the small risk of developing carcinoma within a pouch that is not excised remains a contentious issue and is an argument for long-term follow-up or treating the condition by external excision, particularly in younger patients. Some surgeons are using external approach combined with the endoscopic approach giving good results. A conversion to open surgery with cervicotomy should be done when a good endoscopic exposure is not possible. Pharyngeal pouch is a rare disorder and not much reported in local literature.

REFERENCES