

Oesophagocutaneous fistula - a rare complication of thyroidectomy for benign goitre

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Keywords: Thyroidectomy; oesophagocutaneous fistula; gastric heterotopia.

Case presentation

A 26 year old female resident of Western Maharashtra (India) presented with a salivary fistula on the anterior aspect of the neck. She had undergone a left hemithyroidectomy for left lobe goitre at a private hospital 4 weeks back. She had a history of goitre for six months. There was no history of hoarseness of voice, dysphagia or dyspnoea. Operative notes did not mention about intra operative oesophageal injury. On the fifth postoperative day the entire wound dehiscd and the patient developed a large salivary fistula. In the same institute the salivary fistula was initially managed conservatively. Nasogastric intubation was tried but failed even under fluoroscopic guidance. A feeding jejunostomy was done. The histopathological report of the goitre was benign.



Figure 1: Showing oesophagocutaneous fistula with scar of thyroid surgery

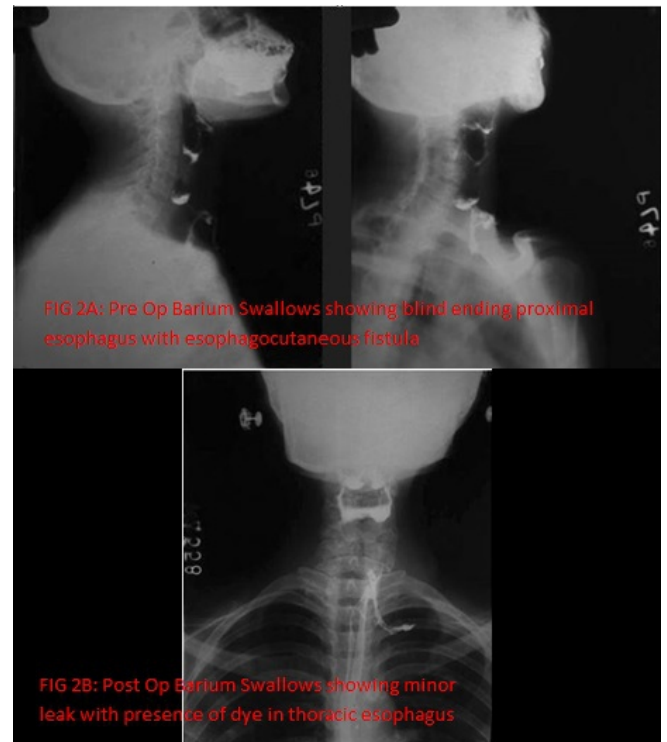



Figure 2: Pre and Post operative Barium swallows

She was referred to our institute for further management. There was no hoarseness or change of voice. On local examination there was a scar of Kocher's incision with a centrally located salivary fistula (figure 1). A feeding jejunostomy was present. Indirect laryngoscopy did not reveal any abnormality. Barium swallow was suggestive of blind ending proximal oesophagus with an oesophagocutaneous fistula (figure 2). Distal oesophagus could not be visualized on endoscopy. Broad spectrum antibiotics were started.

Local exploration and end to end anastomosis was planned. Intraoperatively there was intense fibrosis all around. A nasogastric intubation was tried intraoperatively and the Ryle's tube was seen abutting the upper blind pouch. A stricturous segment 2-3 cm long was evident between the proximal and distal oesophageal pouches. Upper pouch was opened and nasogastric tube was retrieved. Distal oesophagus was mobilized. The strictured segment was excised. A single layer primary anastomosis was done (with polyglycolic acid

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DOI: <http://doi.org/10.4038/sljs.v35i3.8412>



suture 3-0) over a transanastomotic nasogastric tube. Incision was closed in layers after closed suction drainage. A mento-sternal stitch was taken so as to avoid excessive extension at neck.

Postoperative course was complicated by a minor leak (figure 2) which subsided over a week after removal of nasogastric tube. The histopathological report of the excised specimen was chronic non-specific inflammation with foreign body granuloma with gastric heterotopia in the oesophageal mucosa. Patient was discharged after 2 weeks on normal oral feeds. She was advised on long term treatment with proton pump inhibitors. The patient was readmitted after 8 weeks for management of the jejunostomy. She was asymptomatic and had gained weight. She was offered a contrast oesophagogram but she refused. The jejunostomy was removed and she was discharged uneventfully.

She again attended surgical OPD after three and half years for unrelated orthopaedic complaints. The patient was asymptomatic and was eating well. The patient was again advised oesophago-gastroscopy and contrast oesophagogram but she was not compliant as she was asymptomatic. Clinically she was well without any symptoms of dysphagia with healthy scar over the surgery site.

Discussion and conclusion

Common complication after thyroidectomy include, hypoparathyroidism, recurrent laryngeal nerve injury, superior laryngeal nerve injury, thyroid crisis etc. oesophageal injury following thyroid surgery leading to oesophago-cutaneous fistula is an extremely rare event. The first such case in the literature is reported by Ozer MT et al [1].

Oesophageal perforation of any etiology has high morbidity and mortality. Mortality rate reported in literature ranges between 5.5 to 29% depending upon the location and the type of perforation [2]. Treatment choices range from conservative methods such as restriction of oral intake, broad spectrum antibiotic administration and total parenteral nutrition, to surgical methods such as oesophageal repair by primary suturing and drainage, repair with flaps and oesophageal

resection. The outcome of conservative management has a better prognosis in injuries recognised early and in cervical oesophageal injury [3,4]. In the index case the injury was not recognised early which probably led to the formation of stricture at the site of injury causing oesophageal luminal obstruction and fistula.

Case reports of patients with gastric heterotopia in the oesophagus, ranging from spontaneous tracheoesophageal fistula to esophagitis like symptoms due to acid secretion from the gastric heterotopias, have already been reported in literature. But a review of the literature did not reveal its association of with oesophagocutaneous fistula following thyroid surgeries [3,5]. However in the index case, the finding of gastric heterotopia seems to be coincidental. The finding of a long stricturous segment seems more like a sequel of the operative injury. The previous reported cases of oesophagocutaneous fistula following thyroid surgery have not mentioned presence or absence of gastric heterotopias [3,5].

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Learning Points:

- Surgery involving anterior triangle of neck presenting with post operative salivary fistula should be investigated early with investigations like fistulogram, endoscopy etc, for definitive diagnosis and early initiation of treatment.
- Treatment choices range from conservative to surgical methods such as esophageal repair by primary suturing and drainage, repair with flaps for esophageal fistula and esophageal resection.
- A conservative management has better prognosis in injuries recognised early.