

## Post-oesophagectomy and gastric pull-up: Anaesthetic implications

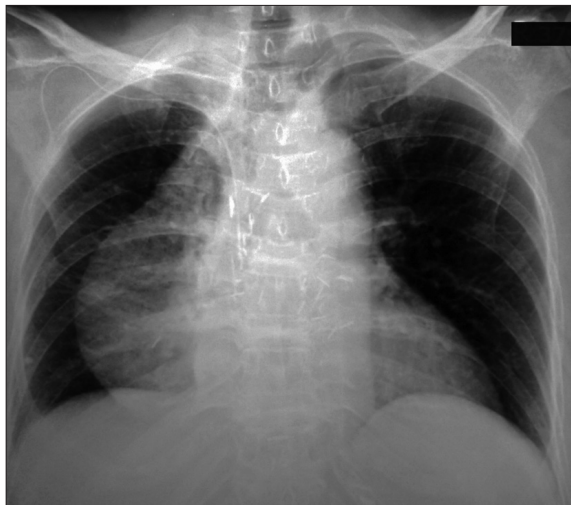
Sir,

We are reporting a case of management of general anaesthesia in a patient with a known history of carcinoma of the oesophagus who had undergone transhiatal oesophagectomy and gastric pull-up. A 53-year-old lady (ASA II status, 58 kg), a case of compression fracture (D10) and thoracic myelopathy, was posted for decompression and vertebroplasty. The patient was diagnosed as having carcinoma of oesophagus and underwent the surgery 3 years back, followed by radiotherapy and chemotherapy. Following the surgery, she complained of a troublesome regurgitation of food contents for about 3 h following food intake. There was often regurgitation of copious gastric content resulting in a burning sensation in

the throat. The passive regurgitation was more in supine position and sitting upright relieved the symptoms. Her airway and systemic examination was unremarkable except for mild weakness in both the lower limbs. Preoperative chest X-ray showed evidence of the gastric pull-up and right subclavian chemo port line [Figure 1]. She was advised fasting for 12 h and put on antacid prophylaxis.

The patient was considered “full stomach” and rapid sequence intubation planned. The patient was placed with a head-up tilt of 30°. General anaesthesia was induced with inj. fentanyl 100 mcg, inj. thiopentone 250 mg and inj. rocuronium 40 mg after preoxygenation with 100% oxygen for 3 min. No positive pressure ventilation was performed before intubation. External pressure was applied on the scar on the left side of the neck. Intubation was uneventful. Nasogastric tube was placed following intubation and gastric contents were aspirated. However, regurgitation of about 200 ml of the bile-stained fluid with some food particles was noted after the patient was positioned prone. At the end of the procedure, the patient was shifted to the PACU with the endotracheal tube, breathing spontaneously on T-piece. The patient was extubated after complete recovery in a head-up position of 45°. Postoperative period was uneventful.

The mortality and morbidity of oesophagectomy and gastric pull-up for carcinoma of oesophagus is high.<sup>[1]</sup> We rarely encounter such patients in our anaesthetic practice who present for an incidental surgery. Majority of these patients experience passive regurgitation of acid contents due to the absence of lower oesophageal sphincter and a less favourable emptying time. The



**Figure 1:** Chest X-ray

draining of the thoracic stomach is mainly by gravity. The risk of aspiration of the gastric contents is definitely high during induction of general anaesthesia. The Head Elevated Laryngoscopic Position (HELP) has been described to result in improvement in laryngoscopic view in morbidly obese patients.<sup>[2]</sup> The OT table can be repositioned by flexing the table at the trunk-thigh hinge and raising the back portion of the table to about 30°. This position helps the gastric contents to gravitate and avoid passive regurgitation during intubation. We considered insertion of nasogastric tube to decompress the stomach, but were unsuccessful as the patient was very uncooperative. The routine cricoid pressure may not help because of the disruption of normal anatomy. It has been suggested that compression at the site of the scar (inner border of the left sternocleidomastoid muscle) may be more appropriate.<sup>[3]</sup> A preoperative CT scan of the neck can help localise the site of anastomosis and manual pressure can be applied to that point. The CT scan also helps recognise any deviation of the anastomosis at the level of cricoid cartilage.<sup>[4]</sup> Awake fibreoptic intubation in a sitting position has also been suggested to secure the airway in post-oesophagectomy patients.<sup>[5]</sup>

Although infrequent now, with the improving survival rates, patients with oesophagectomy and gastric pull-up may be more commonly encountered in anaesthesia practice in days ahead. We recommend 10-12 h of fasting, antacid prophylaxis and decompression of the thoracic stomach with nasogastric tube before induction of anaesthesia. Head elevated position with external compression above the neck scar during induction of anaesthesia is an effective method to decrease the chances of passive regurgitation and aspiration.

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	DOI: 10.4103/0019-5049.108595