

Acute gastric conduit dilatation after oesophagectomy as a cause of respiratory distress

Sir,

Delayed gastric conduit emptying after oesophagectomy is seen in 15%–30% of the patients. It can be treated with pneumatic pyloric balloon dilation or intramuscular quadrant botulinum toxin injection with good results.^[1] Acute gastric conduit dilatation is very rare. We encountered acute dilatation of gastric conduit in a patient who underwent minimally invasive transthoracic oesophagectomy (TTE) and presented with tachypnoea and desaturation after extubation.

A 45-year-old male who had received neoadjuvant chemotherapy and radiation prior to surgery underwent TTE under general anaesthesia. After placing a thoracic epidural catheter under local anaesthesia, we induced general anaesthesia with intravenous (iv) propofol after premedication with 1 mg midazolam and 100 µg fentanyl. Trachea was intubated with size 8 cuffed endotracheal tube after achieving neuromuscular blockade with 6 mg vecuronium. The right internal jugular vein was cannulated under ultrasound guidance and the right radial artery for invasive blood pressure monitoring.

A nasogastric tube (NGT) was placed and confirmed by auscultation at the beginning of surgery after

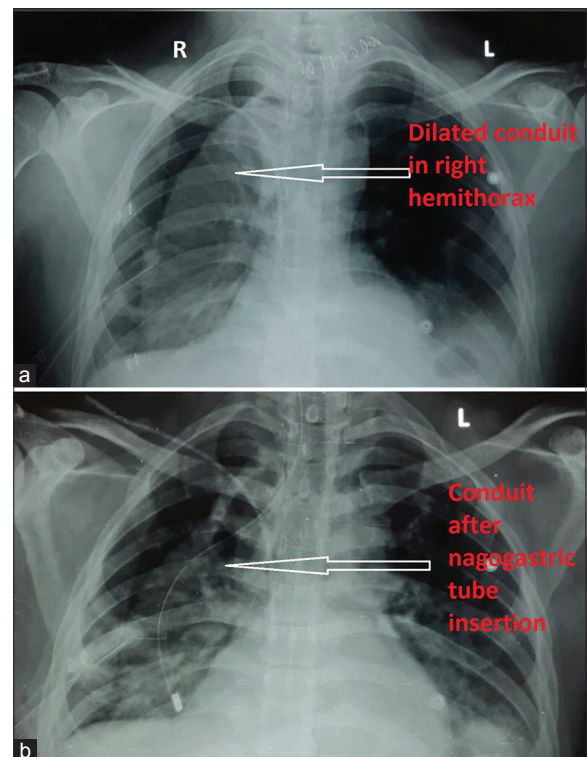


Figure 1: (a) Chest radiograph showing grossly dilated gastric conduit in the right hemithorax. (b) Chest radiograph after nasogastric tube placement showing a decompressed conduit due to which the patient improved symptomatically

induction of anaesthesia. Bilateral intercostal drains (ICD) were placed at the end of surgery. NGT was removed at the end of surgery as per protocol. The trachea was extubated in the surgical Intensive Care Unit (ICU) 3 h after surgery and after he was normothermic. Post-operative analgesia was multimodal: epidural infusion of 0.125% bupivacaine

at 10 ml/h, iv paracetamol 6th h and tramadol 100 mg 8th h. Eight hours after extubation, the patient became tachypnoeic (respiratory rate of more than 35/min) and oxygen saturation dropped to 88% on face mask with a flow of 10 L. On auscultation, air entry was grossly reduced in the right lung zones. Chest radiograph was ordered which is shown in Figure 1a. The gastric conduit was massively dilated. A size 14 NGT was placed under endoscopic guidance and confirmed on fluoroscope. 100 ml fluid was aspirated by suction after NGT placement. The patient became comfortable with improved oxygen saturation with no tachypnoea after the intervention. Another chest radiograph was ordered which is shown in Figure 1b. The dilatation had disappeared due to NGT suction and the conduit appeared normal. Consent was obtained from the patient for publication of case details and images.

Routine use of NGT is discouraged after oesophagectomy for enhanced recovery of patient after surgery. It has been proved that using or omitting NGT decompression has no significant difference in post-operative complications after oesophagectomy.^[2] If required, NGT placement can be safely performed under fluoroscopic guidance.^[3] After an oesophagectomy, there is impaired motility of the tubularised gastric conduit because of vagal denervation and removal of the gastric pacemaker neurons located at the lesser curve.^[4] We feel that getting a chest radiograph after oesophagectomy is very important. Along with central line, tracheal tube and ICD position, the physician in the ICU should inspect the position and size of the gastric conduit. The surgical oncologist should be informed if there is an unusually looking gastric conduit after oesophagectomy so that troubleshooting can be done early. Early decompression can relieve respiratory distress and prevent serious issues such as aspiration pneumonitis in post-operative period.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

1. Rove JY, Krupnick AS, Baciewicz FA, Meyers BF. Gastric conduit revision postesophagectomy: Management for a rare complication. *J Thorac Cardiovasc Surg* 2017;154:1450-8.
2. Weijs TJ, Kumagai K, Berkelmans GH, Nieuwenhuijzen GA, Nilsson M, Luyer MD, *et al.* Nasogastric decompression following esophagectomy: A systematic literature review and meta-analysis. *Dis Esophagus* 2017;30:1-8.
3. Nguyen NT, Slone J, Wooldridge J, Smith BR, Reavis KM, Hoyt D, *et al.* Minimally invasive esophagectomy without the use of postoperative nasogastric tube decompression. *Am Surg* 2009;75:929-31.
4. Collard JM, Romagnoli R, Otte JB, Kestens PJ. Erythromycin enhances early postoperative contractility of the denervated whole stomach as an esophageal substitute. *Ann Surg* 1999;229:337-43.

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