

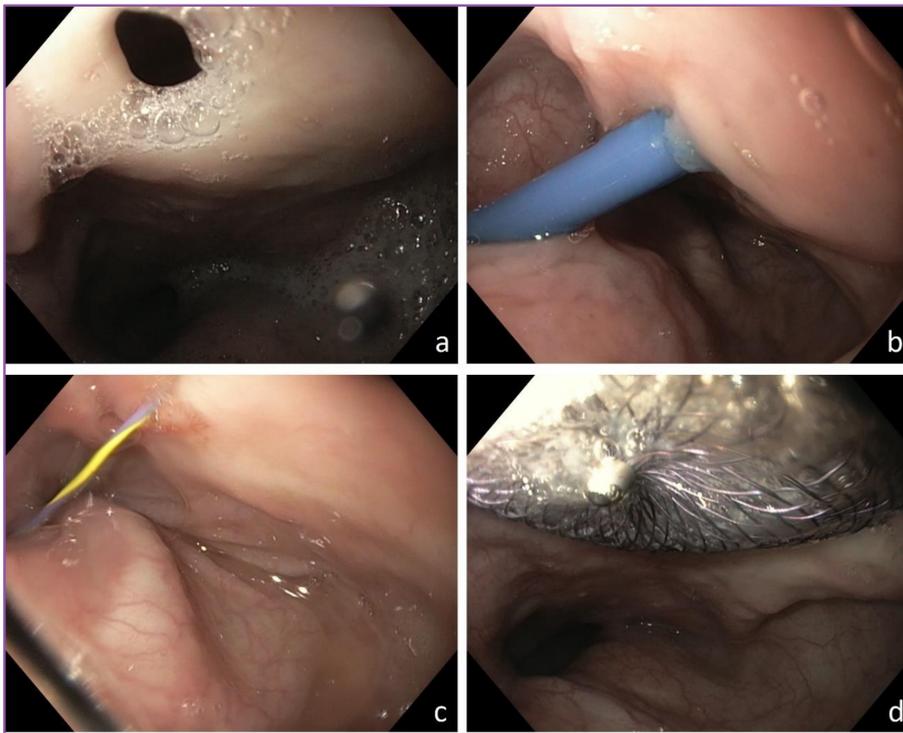


# REFRACTORY TRACHEOESOPHAGEAL FISTULA MANAGEMENT WITH AMPLATZER OCCLUDER PLACEMENT

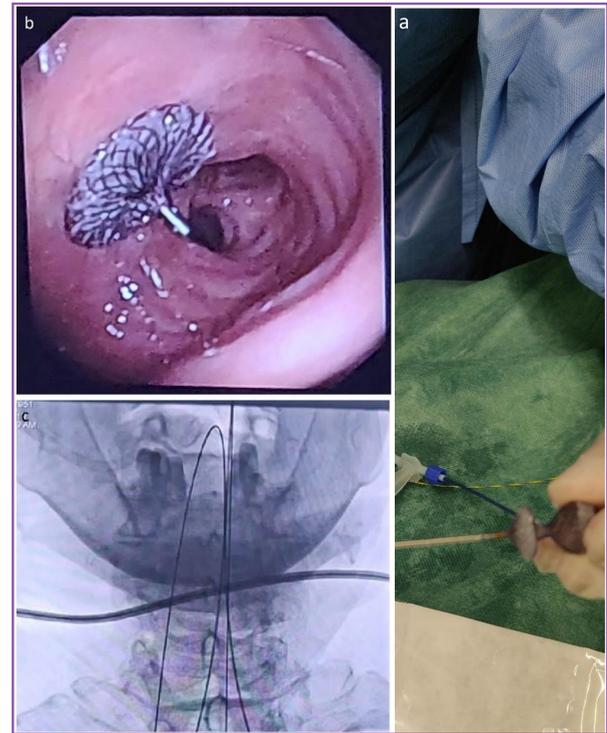
*João Carlos Silva, Carlos Fernandes, Luísa Proença, Pedro Braga, Daniel Coutinho, Ana Catarina Gomes, Edgar Afecto, João Correia, Manuela Estevinho, João Carvalho.*  
Centro Hospitalar Vila Nova de Gaia Espinho

## CASE DESCRIPTION

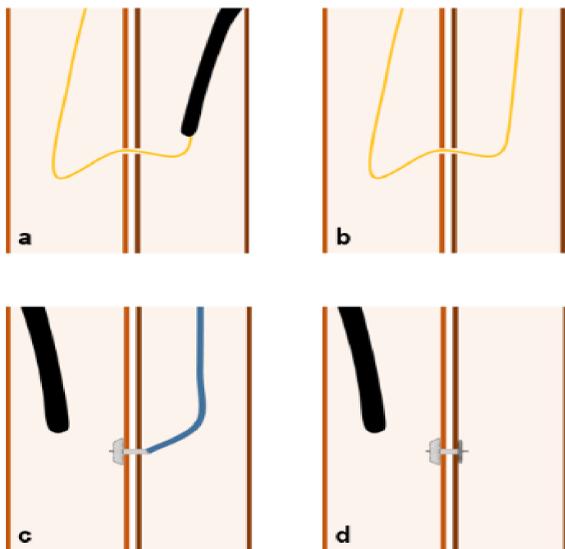
- Tracheoesophageal fistulas (TEF) in adults can be managed either surgically or endoscopically, depending on their etiology, size, anatomy, and patient comorbidities.
- A 68-years-old women admitted in the ER for dysphagia and cough. The patient had medical history of TEF resulting from tracheostomy and prolonged mechanical ventilation. Previous endoscopic treatment had failed, namely 3-attempts of closure with over-the-scope clip (OTSC®). The patient refused surgery. After multidisciplinary discussion (Gastroenterology, Pneumology, Surgery and Interventional-Cardiology), it was decided to attempt Amplatzer-Occluder® placement.
- The procedure was performed through bronchofibroscopy and endoscopy. A guidewire was passed to the trachea with sphincterotome (Figure-1). Subsequently, the guidewire was removed through the trachea by bronchofibroscopy. Further placement of an 8mm Amplatzer-Occluder® from the tracheal side was performed, with sequential opening of the oesophageal and tracheal strands (under endoscopic and fluoroscopic visualization). Proper placement of the device checked (Figure-1-2). Nevertheless 8-weeks after, migration of the device occurred. Percutaneous endoscopic gastrostomy (PEG) was placed, and the patient was referred to surgery.



**Figure 1** – Endoscopy view. a) Tracheoesophageal fistula (TEF) oesophageal strand. b) Passage of the sphincterotome through the TEF. c) Guidewire after sphincterotome removal. d) Amplatzer-Occluder® after opening of the oesophageal strand.



**Figure 2** – a) Testing prior to placement; b) Amplatzer-Occluder® after opening of the tracheal strand; c) Fluoroscopic visualization of the guidewire.



**Figure 3** – Schematic illustration of Amplatzer-Occluder® placement.

- a) A guidewire was passed from the oesophageal side (left) through the tracheoesophageal fistula with a sphincterotome. The sphincterotome was retrieved and guidewire was left in the tracheal side (right). Through bronchoscopy the guidewire was pulled from the tracheal side with biopsy forceps.
- b) The guidewire placed though the tracheoesophageal fistula with both extremities exteriorized in the mouth.
- c) Amplatzer-Occluder® introductory sheath was passed though the guidewire from the tracheal side to the esophageal lumen under fluoroscopic visualization. Sequential opening of the esophageal and tracheal strands was performed under endoscopic visualization and fluoroscopy.
- d) Proper placement of the device was further confirmed by endoscopy, fluoroscopy and bronchoscopy.

## CONCLUSION

When there is extensive fibrosis not amendable to the application of clips, atrial septal defect occluder devices can be considered to manage TEF. Nevertheless there is a need to develop strategies to minimize migration risk.

## REFERENCES

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3. Repici, A., et al., First human case of esophagus-tracheal fistula closure by using a cardiac septal occluder (with video). *Gastrointest Endosc*, 2010. 71(4): p. 867-9.