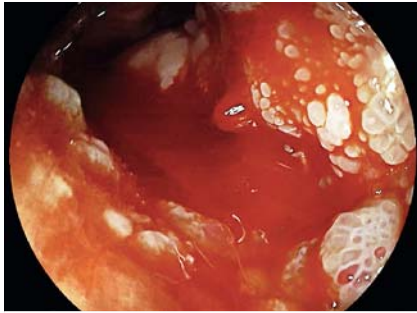


The worst adverse event for an endoscopist after esophageal stent placement: an aortoesophageal fistula

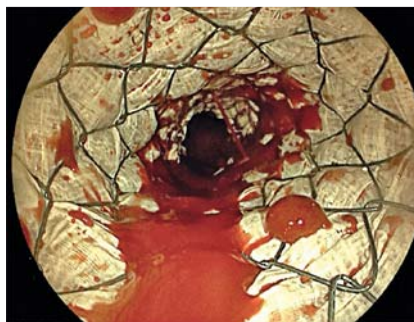


► **Fig. 1** Spurting bleeding vessel at the distal end of the esophageal stent.

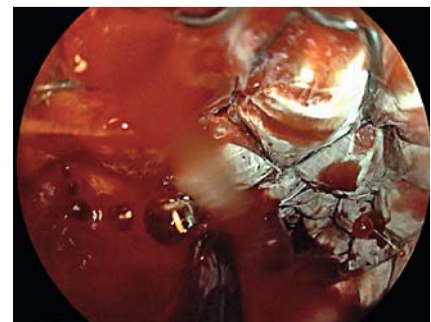
We describe the case of a 75-year-old man who had undergone total laryngectomy with neck dissection and major pectoralis flap for recurrent squamous cell carcinoma after chemoradiation treatment. Post-operatively he developed a recurrent pharyngocutaneous fistula, managed with placement of a partially covered self-expandable metal stent (SEMS) (23 × 105-mm Wallflex; Boston Scientific Inc., Marlborough, Massachusetts, USA). The patient missed a scheduled follow-up for stent retrieval. After several months he was admitted to our emergency department for hematemesis and severe anemia. Following hemodynamic resuscitation, an upper gastrointestinal (GI) endoscopy was performed. A spurting bleed at the distal end of the esophageal stent was observed (► **Fig. 1**, ► **Video 1**). First the stent was removed to expose the source of the bleed, followed by injection of 5 ml of cyanoacrylate glue (Glubran; GEM srl, Viareggio, Italy). Because of persistent active bleeding, a fully covered SEMS (24 × 180-mm Niti-S Beta; TaeWoong Medical, Gyeonggi-do, South Korea) was placed. After few seconds, abrupt bleeding recurred with rupture of the silicone covering of the stent (► **Fig. 2**). Further injection of 3 ml of cyanoacrylate glue was repeated into the mesh, thereby controlling the bleeding almost completely (► **Fig. 3**). An urgent CT angiography re-



► **Video 1** Treatment of an aortoesophageal fistula with cyanoacrylate glue injection and placement of esophageal stent followed by aortic stent graft.



► **Fig. 2** Abrupt bleeding recurrence with rupture of the silicone covering of the stent.



► **Fig. 3** Nearly complete bleeding control after cyanoacrylate injection into the mesh.

vealed an aortoesophageal fistula originating from an anomalous right-sided aortic arch. The cyanoacrylate tamponade effect on the fistula was sufficient to stabilize the patient and, after emergent multidisciplinary consultation, an endovascular bailout was planned. The patient was referred to our cath lab where he immediately received a percutaneous aortic stent graft to stop the leak (► **Fig. 4**). Of note, the aberrant origin of the supraortic trunks allowed for a successful arch covering without brain

ischemic sequelae. The patient recovered uneventfully, and no further bleeding occurred. The esophageal SEMS was removed 1 month later and there was no evidence of a mucosal defect (► **Fig. 5**). An aortoesophageal fistula has been reported as a dramatic adverse event of aortic disease, thoracic aortic surgery, foreign body ingestion, esophageal stent placement and esophageal malignancy with a high mortality rate [1]. To date there is no standardized treatment for this condition [2,3]. Furthermore, the



► **Fig. 4** Fluoroscopic control after placement of the aortic stent graft.



► **Fig. 5** Esophageal mucosa after stent removal.

role of cyanoacrylate glue as a rescue hemostatic tool to control active bleeding is well established [4,5]. This case describes the possible challenges in treating an aorto-esophageal fistula with injection of cyanoacrylate glue and stent placement as a part of a multidisciplinary approach.

Endoscopy_UCTN_Code_CPL_1AH_2AD

Competing interests

Alessandro Fugazza, Laura Lamonaca, Giuseppe Mercante, Efre Civolini, Andrea Pradella: have no conflict of interest; Andrea Anderloni is a consultant for Boston scientific, Olympus; Alessandro Repici is a consultant for Fujifilm, Boston scientific, ERBE.

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