Endoscopic operative rendezvous technique for a complete anastomotic stenosis: A rare description

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CASE REPORT

A 73-year-old man had received a diagnosis of supraglottic squamous cell carcinoma of the larynx in 2015. It was treated with neoadjuvant chemoradiation (10 cycles) followed by a total pharyngo-laryngectomy with demolition of the upper third of the esophagus; a pharyngo-esophageal anastomosis was done. The surgical operation was performed by a multidisciplinary expert surgical team.

A percutaneous 20 French (Fr) Kimberly Clark® endoscopic gastrostomy (PEG) was created, in order to allow the enteral nutrition (NET) of the patient during the first weeks following the surgical operation. Three months after the surgery, the device was removed and the patient started gradually feeding by mouth. Few months later, the patient began presenting worsening dysphagia, initially for liquids and then also for solid foods. As a result, the patient presented recurrent aspiration pneumonia.

An esophageal-gastro-duodenoscopy examination was performed and a complete stricture of pharyngo-esophageal anastomosis was identified, where neither the normal gastroscopic instrument (Olympus®, GIF-H260, Japan) nor the ultra thin trans-nasal one (Olympus®, GIF-XP290N, Japan) was able to pass through the anastomosis itself (Figure 1). The main cause of the obstruction was the fibrosis at the level of the anastomosis itself. A dynamic pharingo-esophageal radiography with barium enhancement was performed, showing a minimum passage of the contrast medium through the anastomosis.

The patient after the evaluation of a multidisciplinary expertise group, was not a candidate for surgical correction, due to the age and the several comorbidities. After a further evaluation by three over 20 year-experience endoscopist, the patient underwent an innovative and since now undescribed endoscopic correction of the disease. The technique consisted in a combined approach both through a peroral and through a trans-gastrostomy insertion of the instrument, providing a rendezvous operative endoscopy (Figure 1).

The first endoscopist performed the examination with an operative esophagogastroscopy Olympus® through the mouth till the fibrotic stenosis, meantime the second endoscopist introduced a transnasal instrument through the gastrostomy reaching the same stenosis. A sphinterotomy as a precut incision of the diaphragmatic fibrotic stenosis was realized through the operative technique.
instrument under direct vision by the second one (Figure 2). After the precut a fluoroscopic rays control with endoluminal injection of amidotrizoate was performed, without visualization of any leakage. Therefore, an Hydraguide wire® was passed through the perioral instrument till the gastrostomy orifice, providing several increasing diameter Savary® dilatations (till 42 French).

At the end of the procedure a 12 mm polymeric Montgomery stent® was placed, thus allowing reducing the risk of a new stenosis. The patient undergoes stent replacement usually every six months. Last follow-up PET-CT-scan control revealed a suspect area of esophageal disease recurrence near the anastomosis. Therefore, an esophagogastroscopy and some randomize biopsies around a granular tissue of the anastomosis were performed. Fortunately, the histological examination didn’t reveal any neoplastic tissue, only aspecific inflammatory cells.

**DISCUSSION**

Pharyngo-esophageal stenosis is one of the most common complications of pharyngo-esophageal anastomosis [1–3]. Several techniques of dilatation are described in Literature [1–4]. Our technique by following the suggested steps of mutual visual confirmation offered safety and efficiency with a very high success rate. We performed this particular rendezvous, making a needle-knife sphincterotomy of the stricture as a precut procedure, which has an electrosurgical cutting wire at the distal end of the catheter. A monopolar power source was connected to the catheter at an electrode connector on the handle. During the sphincterotomy activation of the power source causes electrical current to pass along an insulated portion of the wire within the catheter to the exposed cutting wire, thus incising the circular scar of anastomosis by electrocauterization: the depth of electrocauterization was limited, and perforation of the anastomosis could be avoided. We made three or four incisions at different directions to release the stricture, followed by several increasing diameter Savary® dilatations (till 42 French). The purpose of the incision was breakdown of the membranous circular scar, and we preferred multiple shallow incisions but not one deep incision with curative intent.

The ability of the endoscopists to detect each other’s instruments, light, and movement gives the procedure its high success rate.

**CONCLUSION**

Operative endoscopic rendezvous for pharyngo-esophageal dilatation in severe strictures is technically feasible as long as it is carried out by expert endoscopists.

**REFERENCES**


**SUGGESTED READING**


* Keywords: Anastomotic stricture, Endoscopic rendezvous, Precut procedure, Savary dilatation

**How to cite this article**


Article ID: 100988Z01DB2019

Figure 2: A precut incision being performed under direct vision.
Acknowledgements
The authors would like to acknowledge Michele Rossi and Riccardo Naspetti (Medical Doctors) for assisting in creating the work.

Author Contributions
Damiano Bisogni – Substantial contributions to conception and design, Drafting the article, Final approval of the version to be published
Luca Talamucci – Substantial contributions to conception and design, Drafting the article, Final approval of the version to be published
Rachele Puntili – Substantial contributions to conception and design, Analysis and interpretation of data, Drafting the article, Final approval of the version to be published
Roberto Manetti – Substantial contributions to conception and design, Drafting the article, Final approval of the version to be published

Guarantor of Submission
The corresponding author is the guarantor of submission.

Source of Support
None.

Consent Statement
Written informed consent was obtained from the patient for publication of this clinical image.

Conflict of Interest
Authors declare no conflict of interest.

Data Availability
All relevant data are within the paper and its Supporting Information files.

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