

Title:

Self-expandable metal stent fixation with a temporary Overstitch Apollo® suture as a rescue therapy for a reluctant tuberculous esophageal-mediastinal fistula

Authors:

Enrique Vázquez-Sequeiros, Enrique Rodríguez de Santiago, Eduardo Tavío, Javier Garus, Diego Juzgado, Seung-Hun Chon, Agustín Albillos

DOI: 10.17235/reed.2022.8579/2022 Link: PubMed (Epub ahead of print)

Please cite this article as:

Vázquez-Sequeiros Enrique, Rodríguez de Santiago Enrique, Tavío Eduardo, Garus Javier, Juzgado Diego, Chon Seung-Hun, Albillos Agustín. Self-expandable metal stent fixation with a temporary Overstitch Apollo® suture as a rescue therapy for a reluctant tuberculous esophageal-mediastinal fistula. Rev Esp Enferm Dig 2022. doi: 10.17235/reed.2022.8579/2022.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Self-expandable metal stent fixation with a temporary Overstitch Apollo® suture as a rescue therapy for a reluctant tuberculous esophageal-mediastinal fistula

Enrique Vázquez-Sequeiros¹

Enrique Rodríguez de Santiago¹

Eduardo Tavío¹

Javier Graus¹

Diego Juzgado²

Seung-Hun Chon³

Agustín Albillos¹

¹ Unidad de Endoscopia. Servicio de Gastroenterología y Hepatología. Hospital Universitario Ramón y Cajal, Madrid. Fundación para la Investigación Biomédica del Hospital Universitario Ramón y Cajal (IRYCIS). España.

² Servicio de Aparato Digestivo. Unidad de Endoscopia. Hospital Universitario Quirón Salud Madrid. Madrid. España.

³ Department of General, Visceral, Cancer, and Transplant Surgery, University Hospital Cologne, Cologne, Germany.

Disclosures: EVS: Consultant and paid lectures for Ella-Biomed, Boston Scientific, Olympus. ERS: Consultant and paid lectures for Olympus.

Key words: Fistula; suture; overstich; stent; mediastinum.

Contact address: Enrique Vázquez-Sequeiros

Email: evazquezse@gmail.com

Unidad de Endoscopia. Servicio de Gastroenterología y Hepatología. Hospital Universitario Ramón y Cajal, Madrid. Fundación IRYCIS. Carretera de Colmenar Km 9,200. Madrid.

Mr. Director:

We present the case of a 79 y.o. male diagnosed with tuberculosis and mediastinal lymphadenopathy fistulizing in the esophageal lumen(Figure 1A-1B). Despite a number of treatments, including over-the scope (OVESCO) clip, the patient had intolerance for oral intake and repeated infections. A rescue therapy with antibiotics and an



esophageal self-expandable metal was implemented to seal the orifice and avoid infections. Due to the absence of esophageal lumen stenosis and to avoid stent migration, a decision of stent fixation with a continuous suture with the Overstitch-Apollo® system(Figure1C-D) was made. Fourty-eight hours after the intervention the patient resumed oral intake and 8 weeks later the esophageal stent was removed after cutting the suture with an endoscopic scissors, demonstrating the complete closure of the fistulous orifice(Figurae1E). The patient has maintained an adequate oral intake, with clinical and radiological resolution of his disease.

Discussion:

The Overstitch-Apollo® suture system has been majorly used as a technique for the treatment of obesity. There are other less common indications for this technique, like for example stent fixation(1-3). The migration rate for stents in patients with no stenosis is near to 100%, while if they are fixed with the Overstitch system, 80% of them will remain in place and will facilitate fistula closure(3-4). Although it is not the initial therapy for this type of patients, what this case teaches us is that we should keep it in mind as a rescue therapy in difficult cases that have not responded to standard therapies(3). The lastest version of this suture system, named OverstitchSX, has also the advantage that it does not requires the use of a double-channel endoscope, as it is compatible with single-channel endoscopes, which makes this technique available not only in specialized institutions(5).

BIBLIOGRAPHY:

- 1. Chon SH, Toex U, Plum PS, et al. Efficacy and feasibility of OverStitch suturing of leaks in the upper gastrointestinal tract. Surg Endosc. 2020;34(9):3861-3869. doi: 10.1007/s00464-019-07152-8.
- Juzgado D, Sanchez-Yague A. The Use of the Overstitch Beyond Bariatric Endoscopy: A Pictorial Description. Gastrointest Endosc Clin N Am. 2020;30(1):173-185. doi: 10.1016/j.giec.2019.08.009.



- Sharaiha RZ, Kumta NA, DeFilippis EM, et al. A Large Multicenter Experience With Endoscopic Suturing for Management of Gastrointestinal Defects and Stent Anchorage in 122 Patients: A Retrospective Review. J Clin Gastroenterol 2016;50(5):388-92. doi: 10.1097/MCG.000000000000336.
- 4. Iglesias E, Egea J, Serrano A et al. Endoscopic treatment of postoperative esophagogastric leaks with fully covered self-expanding metal stents. Rev Esp Enferm Dig 2021;113(1):14-22. DOI: 10.17235/reed.2020.6821/2019
- 5. Keihanian T, Othman MO. OverStitch Sx Endoscopic suturing system in minimally invasive endoscopic procedures: overview of its safety and efficacy and comparison to Overstitch ™. Expert Rev Med Devices;2021:29;1-13. doi: 10.1080/17434440.2022.2019579.

IMAGES:

<u>1A</u>: CT: subcarinal lymph nodes and esophagus fistula (yellow arrow:YA). <u>1B</u>: Fistulous orifice (10 mm) in esophagus(YA) with pus. <u>1C</u>: Esophageal covered metal stent Cook® 18 x 100 mm (red arrow:RA) occluding orifice (YA), fixed by Overstich with running suture (blue arrow:BA): 1st suture esophageal mucosa; 2nd suture stent; 3rd suture mucosa. <u>1D</u> X-Ray confirming stent (RA) occludes orifice (YA), with radiopaque suture(BA). <u>1E</u>: Control 8 weeks after stent implant with fistulous orifice healed(YA).

