

Title:

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DOI: 10.17235/reed.2022.8692/2022

Link: [PubMed \(Epub ahead of print\)](#)

Please cite this article as:

Martínez Burgos María, Angulo McGrath Isabela, Morales Bermudez Ana Isabel, Vázquez Pedreño Luis, Marín García David, Durán Campos Asunción, Jiménez Pérez Miguel. Experience in the treatment of esophageal anastomosis dehiscence using self-expanding metallic prosthesis. Rev Esp Enferm Dig 2022. doi: 10.17235/reed.2022.8692/2022.

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Experience in the treatment of esophageal anastomosis dehiscence using a self-expanding metallic prosthesis

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Keywords: Anastomosis. Dehiscence. Prosthesis.

Dear Editor,

Esophageal anastomosis dehiscence is a serious complication after esophageal cancer surgery and is associated with high mortality. The risk of esophageal anastomosis leakage is approximately 4 to 30 %, with a mortality rate of 35 to 70 %. Surgery used to be considered the mainstay for treatment. In recent years, the use of self-expandable prostheses for endoscopic management has been developed as an alternative to surgery, in an attempt to reduce the morbidity and mortality associated with surgery.

This study analyzed the experience of our center in the use of metallic esophageal prostheses for the management of suture dehiscence as a complication after oncologic surgery. The study sample consisted of patients diagnosed with esophageal anastomosis fistula or dehiscence treated by esophageal prosthesis between 2015 and 2021.

Two types of esophageal prosthesis were used: SX-ELLA (fully lined) in esophagogastric anastomosis dehiscence, and Wallflex (partially lined) in esophagojejunal anastomosis. The prosthesis was positioned with radiological control in most of the patients and was fixed proximally by hemostatic clips in all cases. In addition, radiological control was performed 24 hours after prosthesis placement. Technical success was considered as the correct placement of the prosthesis with visualization of anastomotic leak closure after the release of the prosthesis during endoscopy, and clinical success as the resolution of dehiscence after removal of the prosthesis 8 weeks after its placement.

The variables analyzed were: tumor location, surgical technique, percentage of loss of continuity of the anastomosis, percentage migration, technical success, clinical success, and the need for two or more prostheses to achieve clinical success.

RESULTS

The cohort included 19 patients. Baseline patient characteristics are described in table 1. Technical success was 95 %, the fistula not being approachable by the prosthesis in only 1 patient. Prosthesis migration was only described in 5 % (n = 1) of cases, which was resolved by repositioning the prosthesis. Clinical success at 8 weeks was 79 %. The mortality rate in the immediate postoperative period (30 days after surgery) was 15 %. In patients who survived the postoperative period, survival at 1 year after prosthesis placement was 84 %. Fifteen percent of the patients died after the first year of surgery as a result of tumor progression.

CONCLUSIONS

Endoscopic treatment with self-expandable esophageal prostheses has proven to be a technique with a high success rate for the treatment of fistulas and anastomotic dehiscence after surgery, with a low rate of associated complications in our series.

Conflicts of interest: the authors declare none.

REFERENCES

1. López M, Couto I, González B, et al. Empleo de prótesis autoexpandibles en el tratamiento de las dehiscencias postquirúrgicas esofágicas. *Endoscopy* 2017;49(11):1129-94. DOI: 10.1055/s-0037-1607608
2. Albuquerque M, Mohamed F, Planellas P, et al. Utilidad de las protesis autoexpandibles en el tratamiento de las dehiscencias de sutura de anastomosis esofago – gastricas de causa neoplasica. *Endoscopy* 2011;43:A66. DOI: 10.1055/s-0031-1293094
3. Oliveros R, Pinilla R, Contreras H, et al. Manejo de las fístulas de las anastomosis esófagointestinales con prótesis autoexpandibles (PAE) en pacientes con cáncer. Reporte de casos. *Revista Colombiana de Gastroenterología* 2014;29(5).
4. Elena Iglesias Jorquera, Juan Egea Valenzuela, Andrés Serrano Jiménez. 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

Table 1. Baseline patient characteristics. Description of migration, technical success and clinical success

<u>Variable (n = 19)</u>	<u>n (%)</u>
Sex (male)	18 (95 %)
<i>Neoplasm location</i>	
- Middle esophagus	1 (5.3 %)
- Distal esophagus	6 (31.6 %)
- Esophagogastric junction	9 (47.4 %)
- Stomach	3 (15.8 %)
<i>Surgical techniques used</i>	
- Gastrectomy	10 (52 %)
- Double-track esophagectomy (Ivor-Lewis)	6 (31.6 %)
- Triple-track esophagectomy (McKeon)	3 (15.8 %)
<i>Dehiscence location</i>	
- Esophagogastric	9 (47.4 %)
- Esophagojejunal	10 (52.6 %)
<i>Loss of continuity at the anastomosis (%)</i>	
- ≤ 25 %	10 (55 %)
- ≤ 50 %	7 (35 %)
- ≤ 75 %	1 (5 %)

- ≤ 100 %	1 (5 %)
Prosthesis migration	1 (5 %)
Technical success	18 (95 %)
Clinical success (8 weeks)	15 (79 %)

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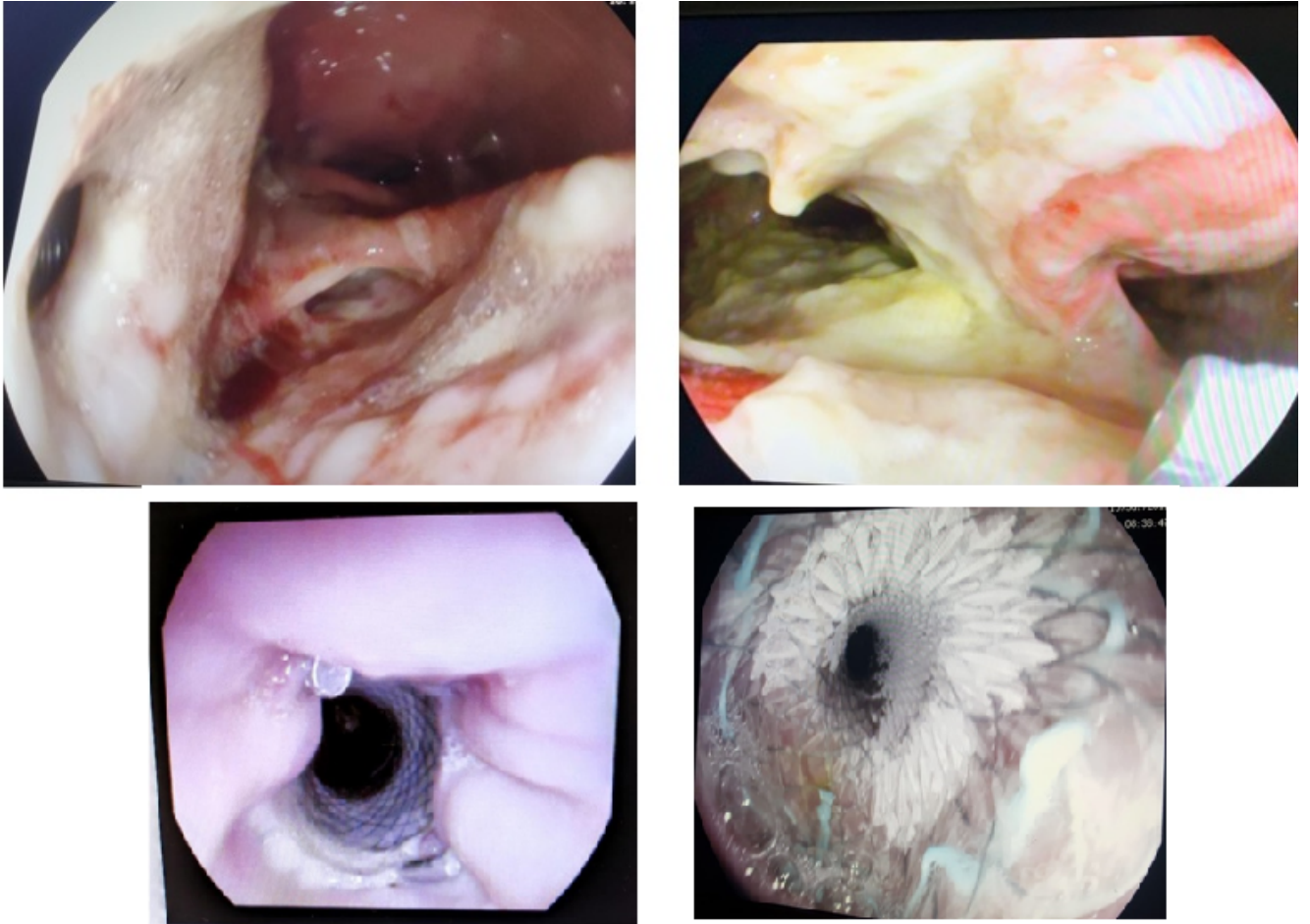


Fig. 1. Endoscopic images.