

Tips and tricks for ileostomy closure after diverting ileostomy for gynecological cancer surgery

Martina Aida Angeles ¹, Victor Lago ^{2,3}, Nicolò Bizzarri ⁴, Elodie Chantalat ¹, Carlo Abatini ⁵, Matteo Frasson ⁶, Alejandra Martinez ¹, Santiago Domingo ², Anna Fagotti ⁴, Gwenael Ferron ¹

For numbered affiliations see end of article.

Correspondence to

Dr Martina Aida Angeles, Department of Surgical Oncology, Institut Claudius Regaud, 31100 Toulouse, Occitanie, France; martinangeles22@hotmail.com

AF and GF contributed equally. VL and NB contributed equally.

Accepted 27 December 2022
Published Online First
12 January 2023

Diverting loop ileostomy is a surgical procedure that can be used for gynecological malignancies.¹ The main indications for this technique are to protect a distal anastomosis after bowel resection, in the event of an anastomotic leak if a previous ostomy was not done, or in the case of bowel obstruction due to tumorous compression or infiltration.² Gynecologic oncologic surgeons need to be comfortable with this surgical technique, but also with ileostomy reversal.

In this surgical video (Video 1), we show the ileostomy closure technique using multiple video sequences from four patients who previously underwent a diverting ileostomy during gynecologic cancer surgery. The surgeries were performed in three referral centers for gynecological malignancies by multidisciplinary teams, including digestive surgeons and gynecologic oncologic surgeons. We standardized the technique in 10 consecutive steps, giving alternatives in some of them (Figure 1).

We divided the procedure in the following steps:

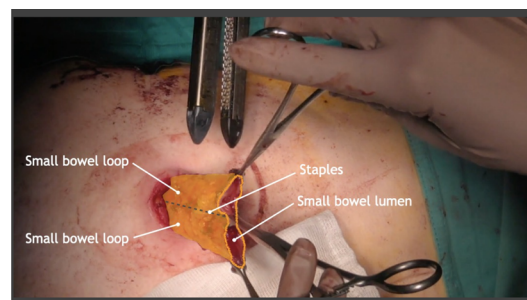


Figure 1 Side-to-side ileal anastomosis for diverting ileostomy closure.

- Step 1: Skin incision
- Step 2: Subcutaneous tissue dissection
- Step 3: Fascia and muscle dissection
- Step 4: Liberation of intestinal adhesions
- Step 5: Anastomosis
- Step 6: Reintroduction in the abdominal cavity
- Step 7: Intra-abdominal drainage (optional)

INTERNATIONAL JOURNAL OF
GYNECOLOGICAL CANCER

Tips and tricks for ileostomy closure after diverting ileostomy for gynecological cancer surgery

Martina Aida Angeles¹, Victor Lago², Nicolò Bizzarri³, Elodie Chantalat¹, Carlo Abatini⁴, Matteo Frasson⁵, Alejandra Martinez^{1,6}, Santiago Domingo², Anna Fagotti⁴, Gwénaél Ferron^{1,7}

¹ Department of Surgical Oncology, Institut Universitaire du Cancer de Toulouse - Oncopole - Institut Claudius Regaud, Toulouse, France
² Department of Gynecologic Oncology, University Hospital La Fe, Valencia, Spain
³ UOC Ginecologia Oncologica, Fondazione Policlinico Universitario A. Gemelli, IRCCS, Dipartimento per la salute della Donna e della Salute Pubblica, Rome, Italy
⁴ Surgical Unit of Peritoneum and Retroperitoneum, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy
⁵ Department of Colorectal Unit, La Fe University and Polytechnic Hospital, Valencia, Spain
⁶ INSERM CRCT Team 1, Tumor Immunology and Immunotherapy, Toulouse, France
⁷ INSERM CRCT Team 19, ONCOSAR - Oncogenesis of sarcomas, Toulouse, France

@IJGOnline

Copyright © 2020 BMJ Publishing Group Ltd, International Gynecologic Cancer Society, & European Society of Gynaecological Oncology. All rights reserved.

Video 1



© IGCS and ESGO 2023. No commercial re-use. See rights and permissions. Published by BMJ.

To cite: Angeles MA, Lago V, Bizzarri N, et al. *Int J Gynecol Cancer* 2023;**33**:1001–1002.

Video article

Step 8: Fascia closure

Step 9: Mesh placement (optional)

Step 10: Skin closure

To summarize, we propose a stepwise standardized technique for diverting ileostomy closure, to enhance the learning curve for gynecologic oncologic surgeons. It is also essential to know how to identify and manage postoperative complications associated with this technique, such as ileus, anastomotic leak, surgical site infection, and incisional hernia.³ During this video, we present some tips and tricks on how to decrease the risk of occurrence of these complications.⁴

Author affiliations

¹Department of Surgical Oncology, Institut Claudius Regaud, Toulouse, France

²Department of Gynecologic Oncology, La Fe University and Polytechnic Hospital, Valencia, Spain

³CEU Cardenal Herrera University, Valencia, Spain

⁴UOC Ginecologia Oncologica, Dipartimento per la salute della Donna e del Bambino e della Salute Pubblica, Policlinico Agostino Gemelli IRCCS, Rome, Italy

⁵General Surgery, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy

⁶Department of Colorectal Unit, Hospital La Fe, Valencia, Spain

Correction notice This article has been corrected since it was first published to add affiliation 3.

Twitter Martina Aida Angeles @AngelesFite and Alejandra Martinez @Alejandra

Contributors All authors made appropriate contributions to the manuscript. MAA is responsible for the overall content as guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial, or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article.

ORCID iDs

Martina Aida Angeles <http://orcid.org/0000-0003-4401-3084>

Victor Lago <http://orcid.org/0000-0002-2971-1899>

Nicolò Bizzarri <http://orcid.org/0000-0002-1727-904X>

Alejandra Martinez <http://orcid.org/0000-0002-7633-3536>

Santiago Domingo <http://orcid.org/0000-0002-8355-3369>

Gwenael Ferron <http://orcid.org/0000-0002-8545-4700>

REFERENCES

- 1 Lago V, Fotopoulou C, Chiantera V, *et al.* Indications and practice of diverting ileostomy after colorectal resection and anastomosis in ovarian cancer cytoreduction. *Gynecol Oncol* 2020;158:603–7.
- 2 Capona R, Hassab T, Sapci I, *et al.* Surgical intervention for mechanical large bowel obstruction at a tertiary hospital: which patients receive a stoma and how often are they reversed? *Am J Surg* 2021;221:594–7.
- 3 Lago V, Sanchez-Migallón A, Flor B, *et al.* Comparative study of three different managements after colorectal anastomosis in ovarian cancer: conservative management, diverting ileostomy, and ghost ileostomy. *Int J Gynecol Cancer* 2019;29:1170–6.
- 4 Aktaş A, Kayaalp C, Ateş M, *et al.* Risk factors for postoperative ileus following loop ileostomy closure. *Turk J Surg* 2020;36:333–9.