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Right diaphragmatic peritonectomy for ovarian carcinomatosis in 10 steps

Martina Aida Angeles,[1] Carlos Martínez-Gómez,[1,2] Federico Migliorelli,[1] Elodie Chantalat,[1] Alejandra Martinez,[1,2] Gwenael Ferron[1]

[1]Department of Surgical Oncology, Institut Institut Claudius Regaud – IUCT-Oncopole, Toulouse, France
[2]INSERM CRCT19, Toulouse, France

Correspondence to
Dr Gwenael Ferron, Surgical Oncology, Institut Universitaire du Cancer Toulouse Oncopole, Toulouse, Languedoc-Roussillon-Midi, France; ferron.gwenael@iuct-oncopole.fr

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ABSTRACT

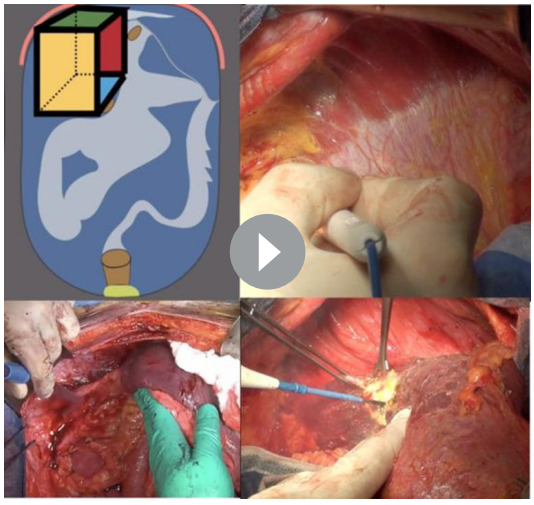
Residual tumor after cytoreductive surgery has been demonstrated to be the most important prognostic factor of survival in patients with advanced ovarian cancer.[1] Extended peritonectomy procedures following Sugarbaker principles are commonly used to achieve complete cytoreduction,[2] with the supramesocolic compartment representing the most challenging part of cytoreductive surgery. Bulky diaphragm implants can preclude complete cytoreduction, especially when the pleura is involved. In contrast, pelvic disease is usually resectable, even in cases of frozen pelvis.[3] For these reasons, peritonectomy of the right upper quadrant should be the first step to perform in debulking surgery; moreover, starting the surgery by right diaphragmatic peritonectomy and following the dissection in a clockwise direction facilitates the following steps. In this surgical video, we aim to standardize right diaphragmatic peritonectomy.

This video shows a right diaphragmatic peritonectomy in 10 consecutive steps (video 1). With a pedagogical purpose, we included multiple fragments of the surgeries of different patients with ovarian cancer and right diaphragmatic peritoneal carcinomatosis, evidenced either in preoperative CT or in previous diagnostic laparoscopy. The surgeries were carried out in a French Comprehensive Cancer Center by the same senior oncological surgeon.

The surgical procedure was divided in the 10 following steps:

Step 1: Right parietal and ventral diaphragmatic peritoneal dissection
Step 2: Right colic mobilization
Step 3: Right gutter peritoneal dissection
Step 4: Section of the liver attachments
Step 5: Suprahepatic veins dissection
Step 6: Duodenopancreatic mobilization (Kocher maneuver)
Step 7: Morrison space dissection
Step 8: Left hypochondria liver mobilization
Step 9: Caudocranial diaphragmatic peritonectomy
Step 10: Diaphragmatic reconstruction and pneumothorax evacuation

To summarize, right diaphragmatic peritonectomy is a procedure regularly employed to obtain a complete debulking by gynecological oncologic surgeons. Right colic and hepatic mobilization are needed to achieve good exposure.[3] As previously reported, standardization of surgical techniques improves understanding and the learning curve of training surgeons.[4] We propose a novel approach following a clockwise dissection in the right upper abdominal quadrant to perform this procedure.



video 1.

Twitter Martina Aida Angeles @AngelesFite and Alejandra Martinez @Alejandra

Contributors MAA: Conceptualization, video editing, writing original draft. CM-G: Conceptualization, video editing, writing original draft. FM: Conceptualization, video editing, writing original draft. EC: Conceptualization, video editing, writing original draft. AM: Conceptualization, project administration, supervision, writing review. GF: Conceptualization, project administration, surgery and video recording, supervision, writing review.

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REFERENCES

1 Heitz F, Harter P, Alesina PF, *et al*. Pattern of and reason for postoperative residual disease in patients with advanced ovarian cancer following upfront radical debulking surgery. *Gynecol Oncol* 2016;141:264–70.
2 Sugarbaker PH. Peritonectomy procedures. *Ann Surg* 1995;221:29–42.
3 Eisenhauer EL, Chi DS. Liver mobilization and diaphragm peritonectomy/resection. *Gynecol Oncol* 2007;104:25–8.
4 Martínez-Gómez C, Angeles MA, Martinez A, *et al*. Laparoscopic anterior pelvic exenteration in 10 steps. *Gynecol Oncol* 2018;150:201–2.