

# How to develop an appropriate extraperitoneal para-aortic space

Felix Boria Alegre,<sup>1</sup> María Cabanes,<sup>2</sup> Alicia Hernández Gutiérrez,<sup>3</sup> Ignacio Zapardiel<sup>4</sup>

<sup>1</sup>Hospital Universitario La Paz, Madrid, Spain

<sup>2</sup>Gynecology, Hospital Universitario La Paz, Madrid, Spain

<sup>3</sup>Gynecology oncology, Hospital Universitario La Paz, Madrid, Spain

<sup>4</sup>Gynecologic Oncology, La Paz University Hospital, Madrid, Spain

## Correspondence to

Dr Felix Boria Alegre, Hospital Universitario La Paz, Madrid, Spain; f.boria.alegre@gmail.com

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The use of the laparoscopic extraperitoneal approach for para-aortic lymph node dissection was first reported by Dargent et al.<sup>1</sup> Since then, its popularity has increased, as it leads to fewer intra-operative and post-operative (radiation-related) complications compared with the transperitoneal approach.

Descriptions of the laparoscopic extraperitoneal para-aortic lymphadenectomy technique have been published several times in a very superficial and general way, without describing in detail the steps and the procedure.<sup>2-4</sup> This video article demonstrates, step by step and very precisely, how to develop an appropriate extraperitoneal para-aortic space, which is the necessary crucial step to complete the procedure extraperitoneally.

The senior surgeon stands on the left side of the patient, with the assistant by his left side. The operation starts as a standard laparoscopy. A pneumoperitoneum is created and a 10 mm endoscope is placed at the inferior margin of the umbilicus. After an abdominal laparoscopic examination, a 15 mm incision is made at the end of the proximal third of an imaginary line between the umbilicus and the anterior superior iliac spine.

The skin and fascia are incised with a scalpel, and transverse muscles and deep fascia are dissected with scissors, taking care not to open the peritoneum.

The surgeon's forefinger is introduced in the incision and dissects the peritoneal layer from the abdominal wall muscles under laparoscopic vision.

After placement of a 10 mm balloon-tipped trocar, the pneumo-extraperitoneum is created, and two 5 mm trocars are placed on the left anterior axillary line and the left mid-clavicular line.

The extraperitoneal space is then developed, starting with the dissection of the left inframesenteric area and then continuing with the left supramesenteric, right infra- and supramesenteric and presacral areas. After that, the lymphadenectomy is carried out following the same order.

In conclusion, dissection of the extraperitoneal space in order to perform a para-aortic extraperitoneal lymph node dissection is an important step of



Video 1

the procedure that could be simplified by following a structured technique such as the one presented in this video article.

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## REFERENCES

1. Dargent D, Ansquer Y, Mathevet P. Technical development and results of left extraperitoneal laparoscopic paraaortic lymphadenectomy for cervical cancer. *Gynecol Oncol* 2000;**77**:87–92.
2. Ramirez PT, Milam MR. Laparoscopic extraperitoneal paraaortic lymphadenectomy in patients with locally advanced cervical cancer. *Gynecol Oncol* 2007;**104**(2 Suppl 1):9–12.
3. Querleu D, Dargent D, Ansquer Y, et al. Extraperitoneal endosurgical aortic and common iliac dissection in the staging of bulky or advanced cervical carcinomas. *Cancer* 2000;**88**:1883–91.
4. Iacoponi S, De Santiago J, Diestro MD, et al. Single-port laparoscopic extraperitoneal para-aortic lymphadenectomy. *Int J Gynecol Cancer* 2013;**23**:1712–6.