



Surgical film

Extra-peritoneal para-aortic lymphadenectomy by robot assisted laparoscopy (EPLRL) in 10 steps



Delphine Hudry^{a,b,*}, Fabrice Narducci^{a,b}, Claudia Andrade^c, Eric Leblanc^{a,b}

^a Oscar Lambret Center, Lille, France

^b Laboratory PRISM - Inserm U1192, Lille University, France

^c Centro Hospitalar Universitário de Coimbra, Portugal

HIGHLIGHTS

- Minimally invasive surgery is important way to allow treatment faster.
- Extra peritoneal access is a interesting for obese patients and when transperitoneal approche is complicated by previous surgeries.
- Robotic approach can be used for extra-peritoneal access, with the technical advantages of the Xi model.

ARTICLE INFO

Article history:

Received 28 May 2019

Received in revised form 31 July 2019

Accepted 2 August 2019

Available online 19 August 2019

Keywords:

Para-aortic lymphadenectomy

Robotic assisted laparoscopy

Surgical technique

Procedure standardization

Endometrial cancer

1. Objective

Para-aortic lymphadenectomy is indicated in cancer staging. Minimally invasive surgery is used. Extra-peritoneal access is a good choice for obese patients or with abdominal adhesions. Extra-peritoneal access allows to remove more lymph nodes than trans-peritoneal access [1]. Extra-peritoneal para-aortic lymphadenectomy by robot assisted laparoscopy (EPLRL) is used in our team [2–4]. Patient cart for Xi system is specific. The robotic arms mobility with patient cart to allow to move patient cart according to the constraints in operative room. The objective of this video is the standardization of EPLRL.

2. Methods

In this video, EPLRL is described in 10 steps to explain technical tips and tricks for extra-peritoneal access and use of robot (Xi). This video gives an example of path of the patient cart in operative room.

The arrangement of instruments and camera can be standardized. After installation of robotic arms, classic landmarks are dissected, and lymph nodes are removed.

3. Results

- Step 1: Retroperitoneal access and introduction of trocars
- Step 2: Robotic arms placement
- Step 3: Identification of left ureter
- Step 4: Identification of Inferior Mesenteric Artery
- Step 5: Identification of left renal vein
- Step 6: Identification of right ureter
- Step 7: Left common and latero-aortal lymph nodes dissection
- Step 8: Aorto-caval and latero-caval, right common iliac, presacral lymph nodes dissection
- Step 9: Extraction of bags with specimens
- Step 10: Fenestration of peritoneum

4. Conclusions

The knowledge of different steps can improve the quality of the surgery. Separating the procedure into 10 steps helps to improve understanding and facilitate learning.

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ygyno.2019.08.003>.

Author contribution

EL was the surgeon for the extraperitoneal approach. FNA allowed the routine implementation in the extra-peritoneal access team with the Da Vinci Xi robot. DH was the surgeon for the video presented. CA and DH contributed to the final video.

* Corresponding author at: Oscar Lambret Center, Lille, France.
E-mail address: d-hudry@o-lambret.fr (D. Hudry).

Declaration of competing interest

The authors declare that there are no conflicts of interest.

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