



Extraperitoneal laparoscopic pelvic lymphadenectomy for cervical cancer staging in twin pregnancy

Mariana Corinti ¹, Vanessa Alvarenga-Bezerra,¹ Reitan Ribeiro ², Adolfo Wenjaw Liao,³ Sergio Podgaec,⁴ Renato Moretti-Marques¹

¹Department of Gynecologic Oncology, Hospital Israelita Albert Einstein, Sao Paulo, Sao Paulo, Brazil

²Department of Surgical Oncology, Hospital Erasto Gaertner, Curitiba, Paraná, Brazil

³Department of Obstetrics, Hospital Israelita Albert Einstein, Sao Paulo, Sao Paulo, Brazil

⁴Department of Gynecology, Hospital Israelita Albert Einstein, Sao Paulo, Sao Paulo, Brazil

Correspondence to

Dr Renato Moretti-Marques, Department of Gynecologic Oncology, Albert Einstein Israelite Hospital, Sao Paulo, Sao Paulo, Brazil; morettimarques@gmail.com

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The increase in maternal age over the last few decades has led to a higher incidence of cervical cancer diagnoses during pregnancy. Among cancers diagnosed during pregnancy, the frequency of cervical cancer is second only to that of breast cancer.¹ Cervical cancer can be treated with fertility preservation and pregnancy maintenance, depending on tumor size, stromal invasion, histological characteristics, and lymph node status.

Lymph node dissection can be performed either by the transperitoneal route or the extraperitoneal approach. For locally advanced cervical cancer, this was first reported in 1996, when the outcome of transperitoneal dissection in porcine models was shown to be inferior to that of extraperitoneal laparoscopy due to adhesion formation.²

In pregnancy, laparoscopic lymphadenectomy with simple trachelectomy and cerclage was first reported in 2010, and in 2015 was shown to be a viable treatment option. However, none of these procedures were performed extraperitoneally.³

The extraperitoneal route is a promising but underused option, owing to the dearth of published reports. For this reason, although the technique was

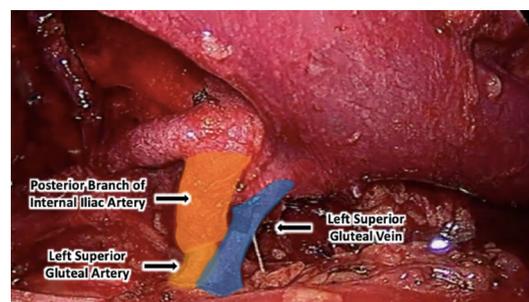


Figure 1 Extraperitoneal vision of the left internal iliac vessels posterior face after lymph nodes dissection.

classically employed for para-aortic access, notably during pregnancy, when uterine size could hinder access to iliac or para-aortic spaces, this route has potential usefulness because it prevents injury, and also decreases fetal exposure to general anesthesia.⁴

Given the need for surgical staging and the difficulties of laparotomy or transperitoneal laparoscopy in twin pregnancies, we opted to perform an extraperitoneal laparoscopic pelvic lymphadenectomy with bilateral access.



Video 1 This video illustrates the surgical technique used, together with the anatomy as viewed from various angles and the identification of anatomical landmarks encountered during pelvic lymphadenectomy. At the end of the recording, the surgical specimen, the final pathological report, and post-treatment follow-up are shown.



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Video article

The patient was a 39-year-old woman carrying a monochorionic diamniotic pregnancy at 16 weeks. She was diagnosed with squamous cell carcinoma because of abnormal first-semester bleeding at 8 weeks. The initial clinical staging was FIGO (2018) IB2, after confirmation by MRI.

At 16 weeks, we performed an extraperitoneal pelvic lymphadenectomy with bilateral access, in the absence of mapped sentinel lymph nodes. Then, we performed an amplified conization and cervical cerclage.

Collaborators Guilherme Bicudo Barbosa.

Contributors MC, VA-B, RR, AWL, SP and RM-M actively participated in the case design. All authors participated in drafting the work, revising critically, and approving the final version. The surgery was performed by RM-M and MC was responsible for editing the video, narration, and follow-up data.

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ORCID iDs

Mariana Corinti <http://orcid.org/0000-0002-7598-9613>

Reitan Ribeiro <http://orcid.org/0000-0002-4323-3854>

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