

Laparoscopic approach for symptomatic pelvic and para-aortic lymphoceles

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Abstract

Description and demonstration of the feasibility of laparoscopic management of symptomatic pelvic lymphocele after surgical staging in gynecological cancer surgery. Step-by-step description of the surgical procedure using pictures and an educational video. Patient gave informed consent for the use of images and the full video article was approved by the Institutional Review Board of the Hospital of Sant Pau. Lymphocele is one of the most common complications of pelvic or lumbo-aortic lymphadenectomy. Although the incidence is variable at 1-58%, around 5-18% of cases are symptomatic. Only symptomatic lymphocele requires treatment, which can be medical or interventional. Drainage is usually performed by guided radiology although a surgical approach has shown a lower rate of recurrence. A 64-years-old woman diagnosed with endometrial carcinosarcoma was staged laparoscopically by pelvic and para-aortic lymphadenectomy. Para-aortic lymphadenectomy was performed using an extraperitoneal approach. Three weeks later she presented with an intense and persistent burning pain, radiating towards the left leg. Computed tomography imaging suggested the presence of a 10x7.6 cm lymphocele adjacent to the left external iliac vessels. Laparoscopy was performed with four-port placement configuration, enabling the identification of a large, bilobed lymphocele, adjacent to the left pelvic wall and left paracolic gutter. Adhesiolysis and identification of main landmarks in the left paracolic gutter and left paravesical fossa was performed as a first step. Peritoneum of each lymphocele was opened in the caudal region and the opening was broadened to facilitate lymph drainage. Owing to the low morbidity and excellent results, we suggest that laparoscopic drainage should be performed as a feasible and useful treatment for pelvic symptomatic lymphoceles.

Keywords: Lymphocele, lymphadenectomy, uterine carcinosarcoma, laparoscopic surgery, oncology

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Introduction

Lymphocele is one of the most common complications of pelvic or para-aortic lymphadenectomy. Although the incidence of subsequent lymphocele varies widely (1-58%), around 4-35% of them are symptomatic (1,2). Lymphocele may cause pain, constipation, urinary frequency or edema of the lower extremities, and can be associated with more severe symptoms, such as infection, hydronephrosis and deep vein thrombosis.

As an interventional approach, percutaneous drainage, which is usually performed by guided radiology, is the preferred method because of its effectiveness, feasibility and low complication

rate. However, marsupialization of the cyst is possible when using a surgical approach. Laparoscopic marsupialization has a lower rate of recurrence (3) and has the advantage of minimally invasive approach. Furthermore, there are many factors that may correlate with the presence of lymphocele, such as body mass index, number of obtained lymph nodes and their positivity, degree of lymphadenectomy, the use of postoperative radiation treatment, and the estimated blood loss (>600 mL) (4,5).

We present the case of a 64-year-old woman with a diagnosis of endometrial carcinosarcoma (Video 1). She underwent staging surgery including total hysterectomy along with bilateral adnexectomy and pelvic and lumbo-aortic lymphadenectomy



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by laparoscopy. The number of retrieved nodes were, respectively, 19 and 14 with no evidence of malignant cells. The patient was classified as Stage IB by the International Federation of Gynecology and Obstetrics classification. Para-aortic lymphadenectomy was performed using an extraperitoneal approach, leaving the retroperitoneum open at the end of the procedure to reduce the risk of lymphocele. No tube drainage was inserted after surgery as the evidence suggests that placement of retroperitoneal tube drains has no advantage in preventing lymphocele formation after pelvic lymphadenectomy. To the contrary, a systematic review showed a trend toward an increased risk of symptomatic lymphocele formation in the drained group (5).

Three weeks later the patient presented with intense pain radiating toward the left leg, with a score of 8 out of 10 on the visual analogue scale. The computed tomography (CT) scan suggested the presence of a 10x7.6 cm lymphocele surrounding the left external iliac vessels (Image 1).

The Gynaecology Oncology Committee advised the need for intervention in order to improve her symptoms. Initially, placement of a percutaneous drainage by guided radiology was proposed. However, the patient was very obese and this approach would have been difficult. Thus, surgical treatment was proposed as being more pragmatic.

Laparoscopy was performed with a standard, four-port placement configuration, using a 10 mm optical trocar and three 5 mm accessory trocars placed laterally and suprapubically. As a first step, adhesiolysis and identification of the main landmarks in the left paracolic gutter and left paravesical fossa was performed. The peritoneal surface of each lymphocele was opened in the caudal region (Image 2) and the opening was broadened to facilitate the drainage of the lymph (Image 3).

Total surgical time was fifty minutes and the patient was discharged two days later with improvement of her symptomatology. In the post-operative CT-scan, the cranial

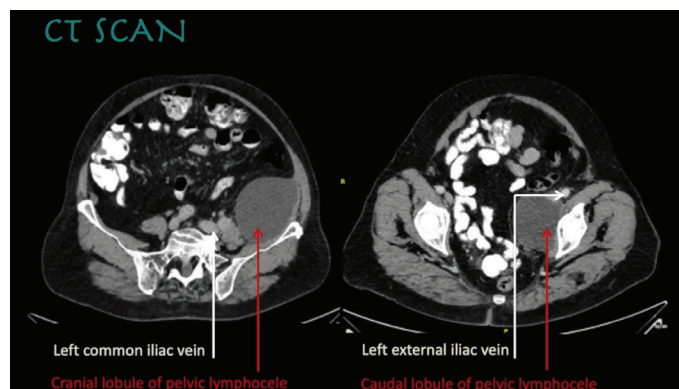


Image 1. Computed tomography scan showing two images suggestive of the presence of pelvic lymphocele

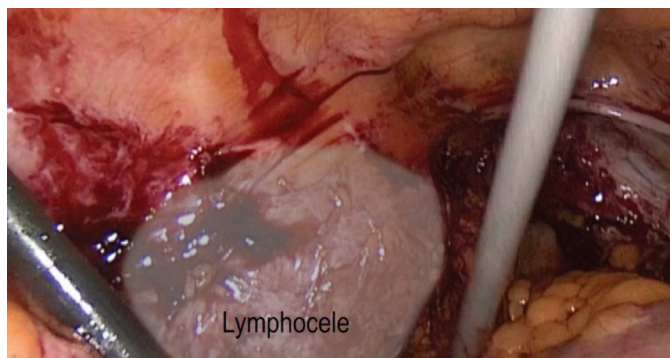


Image 2. Pelvic lymphocele before drainage

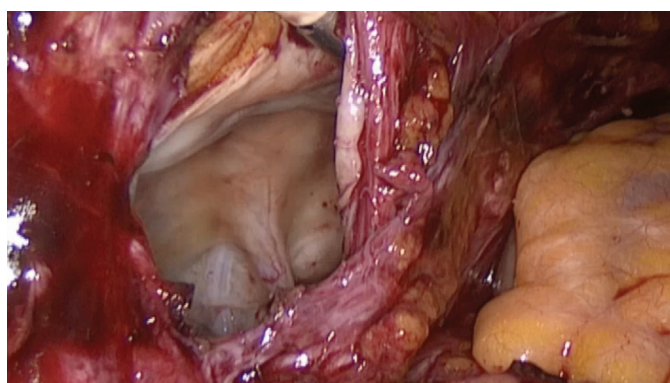


Image 3. Pelvic lymphocele after drainage

lobe of the lymphocele had disappeared, with a residual image of the caudal lobe remaining. However, the patient persisted asymptomatic.

Video 1.



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