Video Article

Laparoscopic approach for symptomatic pelvic and para-aortic lymphoceles
Luzarraga et al. Laparoscopic drainage of pelvic lymphocele

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Abstract

Objective: Description of laparoscopic management for symptomatic pelvic lymphocele after surgical staging in gynecological cancer surgery and demonstrate its feasibility. Step-by-step description of the surgical procedure using pictures and an educational video. Informed consent was obtained 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 its incidence is about 1-58% (1), around 5-18% of them are symptomatic. Only symptomatic lymphoceles require treatment as medical or interventional approach. Drainage is usually performed by guided radiology although surgical approach has shown a lower rate of recurrence.

A 64-years-old woman with diagnosis of endometrial carcinosarcoma was staged laparoscopically by pelvic and para-aortic lymphadenectomy. Para-aortic lymphadenectomy was performed by extraperitoneal approach. Three weeks later she presented with intense and persistent burning pain irradiated toward left leg. CT scan revealed two images suitable with the presence of a 10 x 7.6 cm lymphocele adjacent to left external iliac vessels.

Laparoscopy was performed with four-port placement configuration, enabling the recognition of a big bi-lobulated lymphocele adjacent to left pelvic wall and left paracolic gutter. Adhesiolysis and identification of main landmarks in left paracolic gutter and left paravesical fossa was performed as a first step. Peritoneum of each lymphocele was opened in their caudal part and the opening was broadened to facilitate the lymph drainage. Owing the little morbidity and the excellent results, laparoscopic drainage should be performed as a feasible and useful treatment for pelvic symptomatic lymphoceles.

Keywords: Lymphocele, lymphadenectomy, uterine carcinosarcoma, laparoscopic surgery, oncology
Introduction
Lymphocele is one of the most common complications of pelvic or para-aortic lymphadenectomy. Although it incidence is about 1-58% (1), around 4-35% of them are symptomatic (2), causing pain, constipation, urinary frequency or edema of lower extremities, as well as more severe symptoms such as infection, hydronephrosis and deep thrombosis vein.
As interventional approach, percutaneous drainage (usually performed by guided radiology) is the preferred method because of its effectiveness, feasibility and low complication rate. However, it’s known that surgical approach allows the marsupialization of the cyst. Laparoscopic marsupialization has shown the lower rate of recurrence (3) and has the advantage of minimally invasive approach.
Furthermore, there are many factors that might be correlated with the presence of lymphocele such as body mass index (BMI), 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-years-old woman with a diagnosis of endometrial carcinosarcoma (video 1). She underwent a staging surgery by total hysterectomy along with bilateral adnexitomy and pelvic and lumbo-aortic lymphadenectomy by laparoscopy. Retrieved nodes were respectively 19 and 14, with no evidence of malignant cells. The patient was classified as a Stage IB by the FIGO (International Federation of Gynecology and Obstetrics) classification. Para-aortic lymphadenectomy was performed by extraperitoneal approach, leaving the retroperitoneum open at the end of the procedure to reduce the risk of lymphoceles. No tube drainage was inserted after surgery as it seems that placement of retroperitoneal tube drains has no advantage in preventing lymphocele formation after pelvic lymphadenectomy. In fact, 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 an intense pain irradiated toward left leg, with a punctuation of 8 over 10 in the Visual Analogue Scale. The CT scan reported two images suitable with the presence of a 10x7,6 cm lymphocele surrounding left external iliac vessels (image 1).
The Gynaecology Oncology Committee decided the need of an intervention for symptom improvement. Initially the placement of a percutaneous drainage by guided radiology was proposed. However, the patient was very obese and this approach would have been difficult; Thus, a surgical treatment was proposed.
Laparoscopy was performed with standard four-port placement configuration, using a 10mm optical trocar and three 5mm accessory trocars placed laterally and suprapublically. As a first step, adhesiolysis and identification of main landmarks in left paracolic gutter and left paravesical fossa was performed. Peritoneal surface of each lymphocele was opened in their caudal part (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 lobule of the lymphocele has disappeared, remaining a residual image of the caudal lobule. However, the patient persisted asymptomatic.
References

Figure 1. CT-Scan showing the presence of two images suitable with the presence of pelvic lymphocele
Figure 2. Pelvic lymphocele before its drainage

Figure 3. Pelvic lymphocele drained.