



Robot - assisted laparoscopic retroperitoneal lymph node dissection in testicular tumor

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ABSTRACT

Introduction and objective: Retroperitoneal lymph node dissection (RPLND) is indicated for patients with non-seminomatous germ cell tumor (NSGCT) with residual disease after chemotherapy. Although the gold standard approach is still the open surgery, few cases of robot-assisted laparoscopic RPLND have been described. Herein, we aim to present the surgical technique for robot-assisted laparoscopic RPLND.

Patient and method: A 30 year-old asymptomatic man presented with left testicular swelling for 2 months. Physical examination revealed an enlarged and hard left testis. Alpha-fetoprotein (>1000ng/mL) and beta-HCG (>24.000U/L) were increased. Beta-HCG increased to >112.000U/L in less than one month. The patient underwent a left orchiectomy. Pathological examination showed a mixed NSGCT (50% embryonal carcinoma; 30% teratoma; 10% yolk sac; 10% choriocarcinoma). Computed tomography scan revealed a large tumor mass close to the left renal hilum (10x4x4cm) and others enlarged paracaval and paraortic lymph nodes (T2N3M1S3-stage III). Patient was submitted to 4 cycles of BEP with satisfactory response. Residual mass was suggestive of teratoma. Based on these findings, he was submitted to a robot-assisted RPLND.

Results: RPLND was uneventfully performed. Operative time was 3.5 hours. Blood loss was minimal, and there were no intra- or postoperative complications. The patient was discharged from hospital in the 1st postoperative day. Pathological examination showed a pure teratoma. After 6 months of follow-up, patient is asymptomatic with an alpha-fetoprotein of 2.9ng/mL and an undetectable beta-HCG.

Conclusion: Robot-assisted laparoscopic RPLND is a feasible procedure with acceptable morbidity even for post chemotherapy patients when performed by an experienced surgeon.

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