



# Robot-assisted retroperitoneal lymph node dissection as primary treatment for stage II seminoma germ cell tumor

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## ABSTRACT

**Introduction:** Historically, therapeutic avenues for patients with clinical stage II seminoma germ cell tumors (SGCT) were confined to radiotherapy and chemotherapy. While survival rates with these modalities are commendable, both entail substantial long-term morbidities. Furthermore, this youthful patient cohort exhibits elevated rates of secondary malignancies, surfacing decades post-successful primary cancer treatment (1). Recently, retroperitoneal lymph node dissection (RPLND) has emerged as a primary treatment consideration for individuals with low-volume metastatic seminoma (2-4). However, there is a dearth of video documentation illustrating the robotic assisted (RA) bilateral approach (5- 7).

**Methods:** We present the case of a 24-year-old male who underwent prior left orchiectomy for seminoma (pT1b). Despite negative serum tumor markers, a 1.7 x 1.4cm lymph node enlargement was identified in the aortic bifurcation after 4 months, classifying the patient as stage IIA per the IGCCCG risk classification. Subsequently, a RA bilateral template RPLND was performed due to the patient's refusal of chemotherapy, citing concerns about offspring.

**Results:** The surgery was performed, incorporating nerve sparing techniques, lasting 4h13minutes, an estimated bleeding rate of 400ml, without intraoperative complications. The patient was discharged within 24 hours of the procedure, following a prescribed low-fat diet.

**Conclusion:** The patient experienced postoperative well-being, painlessness, and resumed work three weeks post-procedure. Preserved ejaculation was noted, and adjuvant therapy was performed with 2 cycles of EP due to the anatomopathological result. The feasibility of robotic primary RPLND for SGCT was demonstrated, showing reduced postoperative pain and early hospital discharge. Further studies are necessary to validate our findings regarding oncological, safety, and functional outcomes.

## CONFLICT OF INTEREST

None declared.

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