CONCLUSION

Pelvic metastasis in testicular cancer is rare but can be a site of primary disease, relapsed disease, or late-relapse disease. These patients tend to present with high-volume retroperitoneal disease and a history of prior groin surgeries or an undescended testicle. Surgery is curative in most patients and pelvic pathology was teratoma in more than half.

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EDITORIAL COMMENT

In this issue of *Urology*, Jacob et al present their experience at Indiana University with pelvic lymph node dissection (PLND) for germ cell tumor (GCT). The authors provide several insights with important clinical implications.

Although a PLND at the time of retroperitoneal lymph node dissection (RPLND) is relatively uncommon in GCT, the data suggest that a subset of patients benefit from the procedure. Of 2722 patients undergoing RPLND at Indiana University, 4.9% underwent a synchronous PLND. This is slightly higher than the 2% rate reported by the Memorial Sloan Kettering Cancer Center.[1] The rate of PLND at these institutions is similar to the 5% positive nodal rate seen in nonseminomatous GCT mapping studies,[2] and to the 4% pelvic recurrence rates seen in clinical stage 1 seminoma treated with only a para-aortic strip radiation portal.[3]

Although pelvic involvement of GCT may occur in up to 5% of patients with GCT, the over-representation of teratoma, redo-RPLNDs, and late relapse seen in Jacob et al's study highlights the importance of identifying patients most likely to benefit from a PLND. Jacob et al confirmed that bulky retroperitoneal disease is also a risk factor that can result in pelvic involvement, usually by retrograde spread. Importantly, the authors also identified prior inguinal surgery as another potential risk factor of pelvic involvement with GCT. Inguinal surgery can disrupt the typical lymphatic drainage patterns, resulting in aberrant metastatic dissemination to the ipsilateral pelvic nodes. Interestingly, scrotal violation was not associated with an increased rate of pelvic involvement. Although the present study noted that a history of undescended testis was associated with pelvic involvement on univariate analysis, it is difficult to distinguish undescended testis from the effect of an orchiopexy as a risk factor impacting lymphatic drainage patterns.

We agree with Jacob et al's suggestion that prophylactic pelvic dissection warrants investigation in the postchemotherapy setting for patients with prior inguinal surgery, even when overt disease is not present. Furthermore, we propose a PLND for patients who had pelvic disease present before chemotherapy, even if they experienced a radiographic complete response. We would also add that wide excision of the spermatic cord is prudent when operating on patients whose lymphatic drainage is potentially altered.[4] Given the potential for aberrant lymphatic drainage, a primary RPLND in patients with prior inguinal surgery should either be avoided in many cases or include an ipsilateral PLND. Although the decision for prophylactic PLND during RPLND should be individualized, the study by Jacob et al provides very useful guidelines in identifying those patients at highest risk of pelvic involvement who would thus benefit from a PLND.

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AUTHOR REPLY

In reply to the submitted commentary, we would like to clarify a few points that we believe are important to the discussion regarding pelvic disease in germ cell tumors.

Firstly, we describe 4.9% of our retroperitoneal lymph node dissection (RPLND) cohort that were found to have synchronous **or** metachronous pelvic disease. It is important to note that only 68% of these patients presented with synchronous pelvic disease. Twenty-four percent of patients presented with pelvic disease in the late-relapse setting. Approximately 19% of patients had previously undergone an RPLND.

Additionally, we do not propose a pelvic dissection in the setting of a complete response to chemotherapy. This is similar to our recommendation against prophylactic postchemotherapy RPLND for patients with complete remission in the retroperitoneum. This is based on 15-year follow-up data in patients with a complete