

need for RoR. Furthermore, we found vessel involvement was the strongest predictor of RoR and additional clinical or radiographic features provided no additional predictive power. Based on the PPV and NPV, patients with tumor contacting one of the great vessels, vessel involvement of at least 135° for the IVC and 330° for the AA, ~50% of patients require RoR of the respective vessel with < 10% requiring RoR under the given threshold.

The clinical factors identified in our study may potentially aid urologists in preoperative identification of patients at high risk for requiring vascular intervention, allowing for preoperative consultation of additional surgical services, through patient counseling, and referral to high-volume centers if appropriate.

There are important limitations to our study. The decision to perform RoR can be subjective and affected by surgeon experience and comfort level with vascular surgical procedures. That being said, we do think that these objective findings on preoperative imaging may help identify patients at high risk for needing these adjunct vascular procedures. Further, our findings are based on the results of 2 institutions only and due to the low event rate, we were not able to externally validate the model but encourage others to do so.

CONCLUSION

The degree of circumferential tumor involvement of the aorta (> 330°) and IVC (> 135°) is highly associated with the need for RoR during PC RPLND, irrespective of other clinical or radiographic findings. All patients undergoing RPLND should be counseled on possible need for vascular intervention, however patients with these tumor characteristics on preoperative imaging should be considered at high risk and planned for accordingly.

References

1. Daneshmand S, Albers P, Fossa SD, et al. Contemporary management of postchemotherapy testis cancer. *Eur Urol*. 2012;62:867–876.
2. Fizazi K, Tjulandin S, Salvioni R, et al. Viable malignant cells after primary chemotherapy for disseminated nonseminomatous germ cell tumors: prognostic factors and role of postsurgery chemotherapy. *J Clin Oncol*. 2001;19:2647–2657.
3. Ehrlich Y, Kedar D, Zelikovski A, Konichezky M, Baniel J. Vena caval reconstruction during postchemotherapy retroperitoneal lymph node dissection for metastatic germ cell tumor. *Urology*. 2009;73. 442. e17-442.e19.

4. Spitz A, Wilson TG, Kawachi MH, et al. Vena caval resection for bulky metastatic germ cell tumors: an 18-year experience. *J Urol*. 1997;158:1813–1818.
5. Winter C, Pfister D, Busch J, et al. Residual tumor size and IGCCCG risk classification predict additional vascular procedures in patients with germ cell tumors and residual tumor resection: a multicenter analysis of the German Testicular Cancer Study Group. *Eur Urol*. 2012;61:403–409.
6. Christmas TJ, Smith GL, Kooner R. Vascular interventions during post-chemotherapy retroperitoneal lymph-node dissection for metastatic testis cancer. *Eur J Surg Oncol*. 1998.
7. Beck SDW, Lalka SG. surgery JPD-JOV, 1998. *Long-Term Results After Inferior Vena Caval Resection During Retroperitoneal Lymphadenectomy for Metastatic Germ Cell Cancer*. Elsevier; 1998.
8. Sarkar R, Eilber FR, Gelabert HA, Quinones-Baldrich WJ. Prosthetic replacement of the inferior vena cava for malignancy. *J Vasc Surg*. 1998;28:75–83.

EDITORIAL COMMENT



This is a paper which attempts to use radiologic criteria to predict which post chemotherapy retroperitoneal lymph node dissection (RPLND) patients will require vascular grafts or patches at surgery. Desperation RPLND patients (those who have exhausted all chemotherapy options and have obvious localized cancer remaining) were excluded. Thus, the presumption is that most of these patients had teratoma or necrosis at surgery is reasonable.

I clearly agree that the preoperative CT scan is important. However, the decision to do vascular replacement or patching is really an intraoperative decision. With normal HCG and AFP, the question becomes: what is being resected? If it seems to be teratoma or necrosis, the split and roll technique works because cutting across teratoma or necrosis does not affect the prognosis.

So the decision relies upon the clinical history, the potential morbidity of RPLND with or without vascular replacement/reconstruction and thus is dependent upon the judgment of an experienced testis cancer surgeon.

I think it is nice that these authors have tried to demonstrate that some easily measurable preoperative criteria may be helpful. Ultimately, however, the clinical scenario and intraoperative judgment are the factors which are most important. I wish it were more objective; unfortunately it is not.

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