



Postoperative Complications After Retroperitoneal Sarcoma Surgery: Can We Avoid Them?

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Retroperitoneal sarcoma (RPS) surgery is a type of major oncological procedure. It is characterized by a rate of major postoperative complications that ranges between 15% and 20%, as reported in major series.^{1,2} With this in mind, our group analyzed the association between the cumulative burden of postoperative complications and prognosis in RPS patients.² In this paper, we found that a complication burden of >20.9, quantified according to the Comprehensive Complication Index (CCI), was associated with significantly shorter 5-year survival, but not with a higher incidence of disease relapse.

In the current French study, the authors elegantly described their own series of postoperative morbidity after RPS surgery in a high-volume center in Europe.³ The aim of the study was to evaluate the association between pre- and peri-operative patient characteristics and postoperative morbidity. On the multivariable analysis, male sex, poor performance status, histology being dedifferentiated liposarcoma, and low serum albumin levels were found to be independent predictors of postoperative morbidity. Importantly, the authors did not find a significant association between postoperative morbidity and prognosis. Although the two studies had divergent aims, both concluded that there was no association between postoperative complications and disease relapse. In contrast to our study, however, the French study also found no significant association between postoperative

morbidity and prognosis. We believe that the most plausible explanation for this difference is that the authors did not use a system capable of capturing all postoperative complications, such as the CCI. In addition, the French study did not find any significant association between age and prognosis, which is also in contrast to a recent study published by our group.⁴ Once again, this may be to attribute to the fact that in the French study, age was simply dichotomized, whereas we looked at different age subgroups. In fact, in our series including 692 patients with primary RPS, we showed that postoperative complications were an important cause of death in the elderly, and that age was an independent predictor of survival. Specifically, no patients died of postoperative complications if aged under 65, whilst both morbidity and mortality steadily increased in the older age groups.⁴

The current study provides an important take-home message, highlighting that through the use of several simple and widely available pre-operative parameters, some major complications can be predicted and perhaps mitigated by tailoring surgery to the individual patient. Examples include defunctioning high-risk patients, and providing an adequate pre-operative assessment and counselling for patients who are malnourished, in order to optimize their nutritional status at the time of surgery.

In conclusion, postoperative complications represent a challenge for surgical oncologists managing this disease. Since RPS are an heterogeneous group of disease, morbidity varies according to type of surgery received. Future studies should aim to identify in a more exhaustive way possible predictors of morbidity and mortality. The Transatlantic Australasian Retroperitoneal Sarcoma Working Group may serve to achieve this purpose. Knowing which patients are at highest risk of developing postoperative complications may potentially mitigate their association with morbidity and mortality. For instance, creating specific pathways for

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First Received: 13 April 2023

Accepted: 23 May 2023

Published online: 3 August 2023

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elderly and frail patients or tailoring the type of surgery to individual patients could offer improved outcomes.

DISCLOSURES There are no conflicts of interest.

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