

# Patient outcomes following surgical treatment of retroperitoneal sarcoma in a tertiary centre

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## PURPOSE / OBJECTIVES

Retroperitoneal sarcoma (RPS) is a rare entity, with limited high-level evidence regarding best practice. Following the EORTC-6292 (STRASS) trial<sup>1</sup>, the current consensus remains upfront complete surgical excision with a negative (R0) surgical margin. In our centre, an MDT-centred, pan-surgical approach, is required to ensure optimum patient care.

## MATERIAL & METHODS

We report non-randomised retrospective data from a tertiary centre undertaking primary resection of suspected RPS between January 2016 and December 2023. Histological, radiological and clinical data was retrieved from electronic patient records. Patients unfit for surgical excision and non-retroperitoneal site of disease were excluded. Local audit department approval was granted as a service evaluation project.

## RESULTS

107 consecutive patients underwent excision of suspected RPS during the study period. The median length of follow up was 34.1 months (range 2-95). Median age was 58 at time of surgery (19.9-86.5). Preoperative biopsy was undertaken in 68 patients. Of these 74% (50/68) were congruent with the final pathological result. 6% were non diagnostic. 12% were upgraded following subsequent resection. 7 patients were treated with neoadjuvant chemotherapy or radiotherapy after MDT recommendation. Pathological subtypes were heterogenous. De-differentiated liposarcoma, well differentiated liposarcoma and leiomyosarcoma were the most common. 26 patients had benign pathology other than sarcoma and these were excluded from the analysis. These included ganglioneuroma, schwannoma, atypical lipomatous tumour, leiomyoma, paraganglioma, lipoma or other benign subtypes. Margin status was 60.0%, 32.9% and 3.6% for R0, R1 and R2 disease respectively. 2 patients had inoperable disease. 6 patients had post operative complications  $\geq$  Clavien-Dindo level 3. Recurrence rates varied by histopathological subtype (Figure 1), with de-differentiated liposarcoma and leiomyosarcoma the most common. 3-year disease free survival was 77.6%. 19 patients died during the follow up period. 3 year overall survival was 76.8% (Figure2). 11 patients received adjuvant or palliative chemotherapy or radiotherapy.

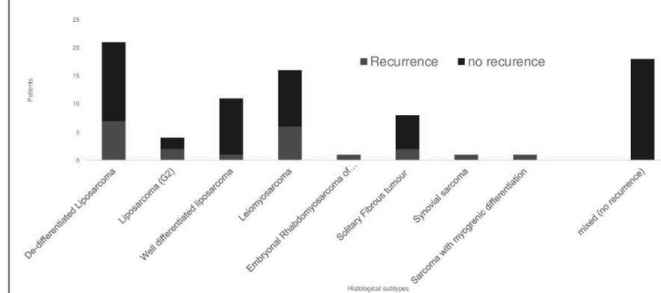
**Surgery is the mainstay of treatment for retroperitoneal sarcoma.**

**These tumours typically involve or abut multiple organs and therefore require multivisceral resection.**

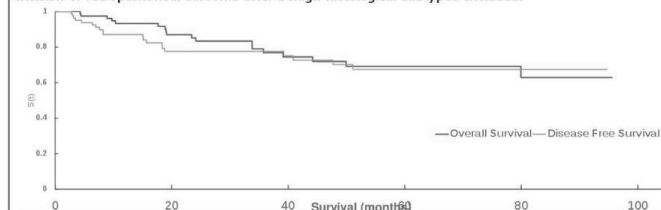
**Primary surgery must be performed in specialised center through an MDT approach to ensure optimum patient care**

## RESULTS

**Figure 1** – Recurrence rates by histopathological subtype after exclusion of benign subtypes



**Figure 2** – Kaplan-Meier expected overall survival and disease-free survival for patients undergoing excision of retroperitoneal sarcoma after benign histological subtypes excluded.



## SUMMARY / CONCLUSION

RPS represents a diverse group of tumours, and our outcomes are comparable with previous published case series.

Surgical treatment of selected cases of RPS in a tertiary centre appears safe and feasible with an MDT-centred approach.

There is limited high level evidence in this rare tumour group. STRASS II a multicentre RCT is due to assess the role of neoadjuvant chemotherapy.

## REFERENCES

1. Bonvalot S, Gronchi A, Le Péchoux C, Swallow CJ, Strauss D, Meus P, van Coillie F, Stokt S, Stockle E, Rutkowski P, Rastrelli M, Raut CP, Hompes D, De Pauli A, Sangalli C, Honoré C, Chang P, Miah A, Bly JY, Firre M, Stelmes JJ, Del Tos AP, Bakiri EH, Llibre S, Murraud S, Gelderblom H, Haas RL. Preoperative radiotherapy plus surgery versus surgery alone for patients with primary retroperitoneal sarcoma (EORTC 62092; STRASS): a multicentre, open-label, randomised, phase 3 trial. *Lancet Oncol.* 2020 Oct;21(10):1366-1377. doi: 10.1016/S1473-0165(20)30446-0. Epub 2020 Sep 14. PMID: 32941794.