

AN UPDATE ON LYMPH NODE METASTASES IN HIGH RISK EXTREMITY SOFT TISSUE SARCOMA AND PROGNOSTIC FACTORS INFLUENCING SURVIVAL

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INTRODUCTION

Soft tissue sarcomas (STS) are a rare heterogeneous tumor group.

While metastases to lungs is more common, nodal metastases are rare.

Recent studies have classified rates of nodal metastases by subtype, though few have characterized nodal metastasis by anatomical location.¹⁻⁵

This study queried a national database to describe the survival and prognostic factors of historically high-risk STS.

METHODS

Using the Surveillance, Epidemiology and End Results (SEER) database, 547 cases of extremity STS with nodal metastasis were identified from 2004 to 2015.

Rates were stratified by high or low-risk subtype and disease-free survival in high-risk STS was assessed.

Overall: 3.7%	PRN	Rate
Rhabdomyosarcoma*	105 of 393	26.7
Clear Cell*	24 of 128	18.8
Epithelioid*	32 of 221	14.5
Angiosarcoma*	19 of 235	8.1
Synovial*	31 of 959	3.2
Sarcoma, unspecified	59 of 894	17.6
UPS	35 of 1506	10.4
Spindle Cell	26 of 519	7.7
Leiomyosarcoma	22 of 1548	6.5
Ewing Sarcoma	12 of 118	3.6

Table 1. Nodal metastases by subtype. PRN, positive regional nodes. UPS, undifferentiated pleomorphic sarcoma. *high-risk.

RESULTS

- Nodal metastasis for all extremity STS was 3.7%
- Nodal metastasis in high-risk subtypes was 10.9%
- Nodal metastasis in low-risk STS was 2.9% (p<0.001)
- Median survival of isolated nodal metastasis is 70.3 months.

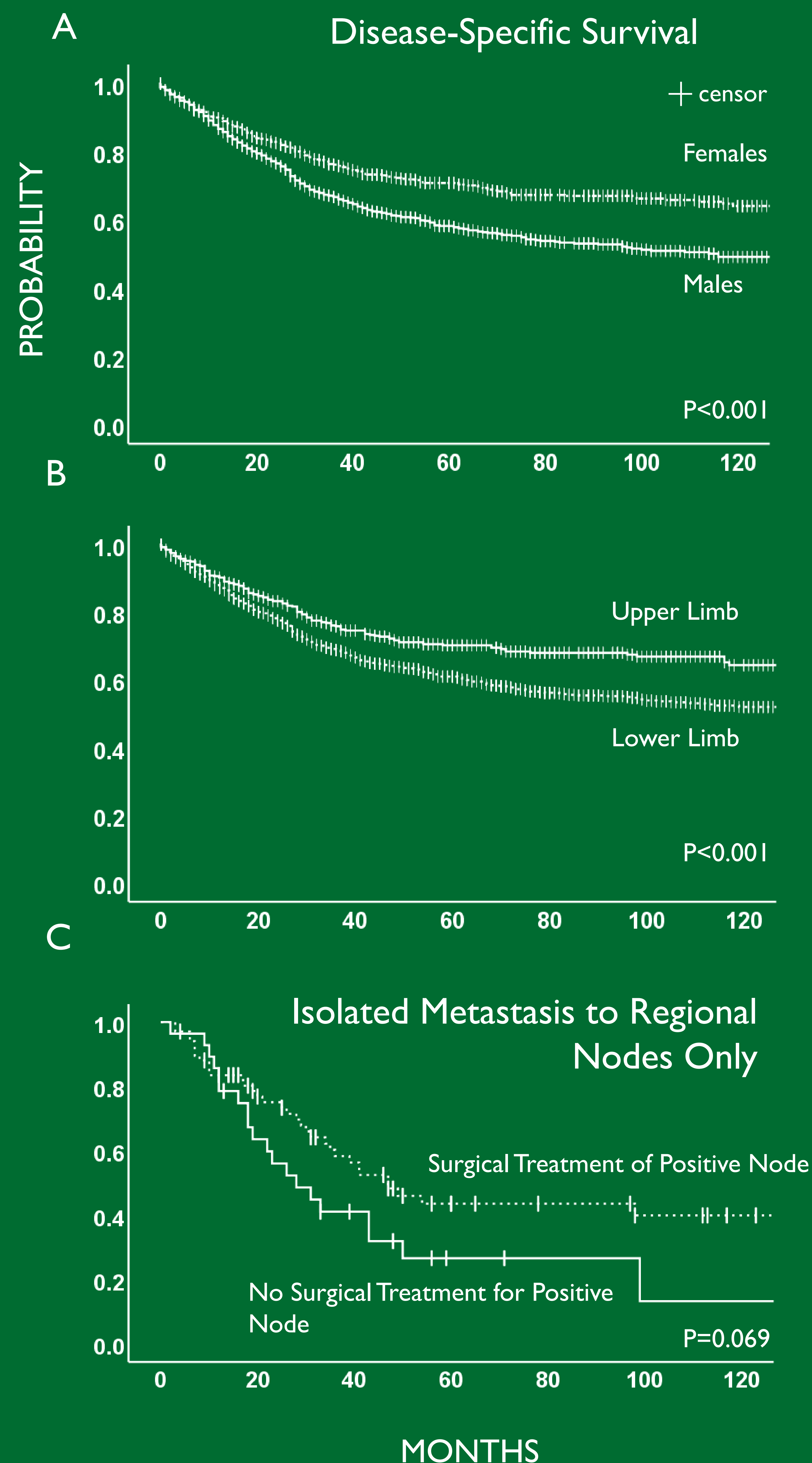


Figure 1. Survival for all high-risk extremity subtypes by sex and site, (A-B) and by nodal evaluation in isolated regional nodes only (no distant nodes) (C).

RESULTS (continued)

After controlling for confounding variables in disease-free survival of high-risk extremity STS, only age, Grade III or IV tumors, distant metastases, and positive regional nodes were significant negative predictors.

For isolated nodal metastasis, only age was a significant negative predictor.

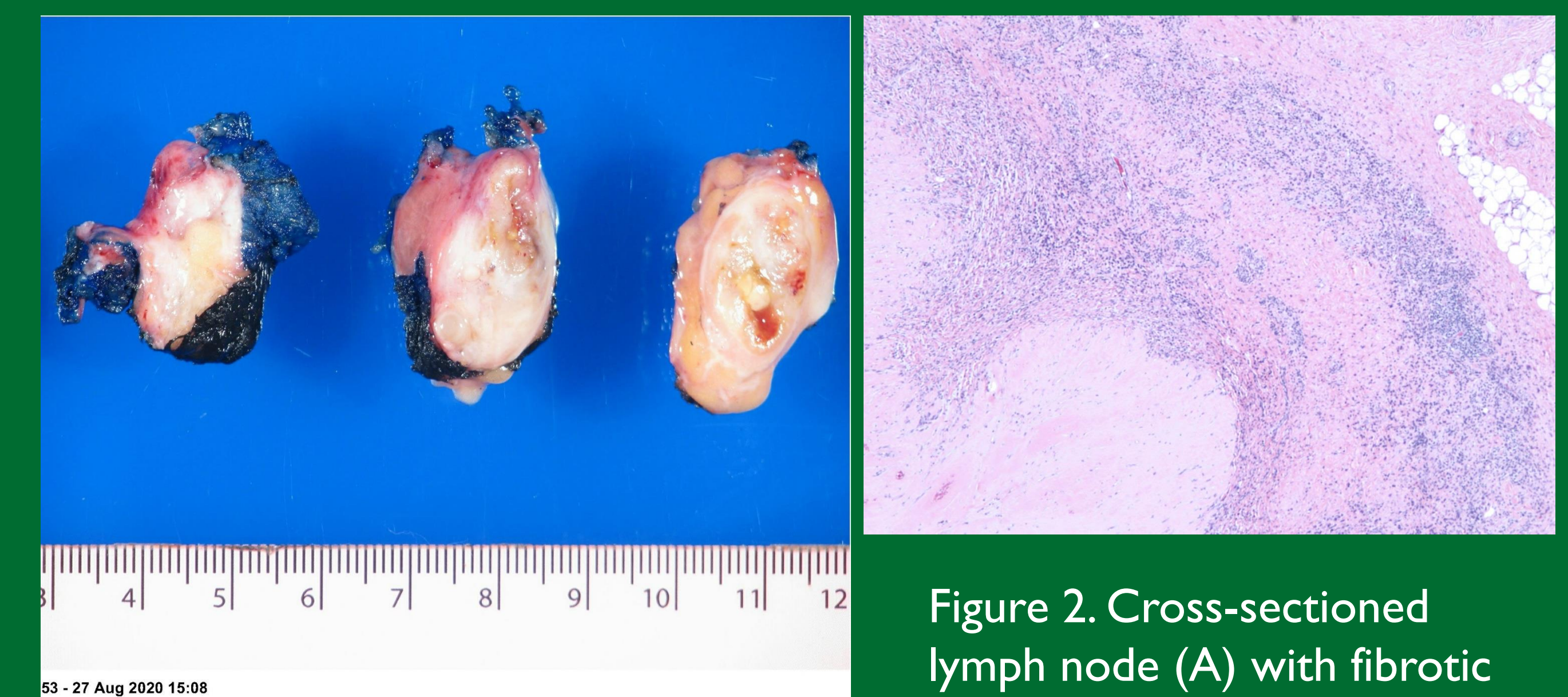


Figure 2. Cross-sectioned lymph node (A) with fibrotic remnants on histology (B) after nodal metastasis from peripheral nerve sheath tumor.

CONCLUSIONS

Additionally, certain low-risk subtypes such as leiomyosarcoma and UPS have higher rates of nodal metastases contrary to previous understanding.

Patients with isolated nodal metastasis only had a poorer prognosis, but positive survival trend with nodal evaluation.

As previously studied, synovial sarcoma, historically considered high-risk, has a relatively low risk of nodal metastasis.

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