

Impact of Local Control and Surgical Lymph Node Evaluation in Localized Paratesticular Rhabdomyosarcoma: A Report from the Children's Oncology Group Soft Tissue Sarcoma Committee

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Background

- Historic 5-year EFS $\geq 85\%$ for PT-RMS
- ?s persist regarding surgical mgmt
 - Hemiscrotectomy, RPLND?
- RPLND recommended for pts ≥ 10 yo
 - RPLN relapse data: IRS-III & -IV, SIOP MMT



Objectives

- To determine the importance of primary tumor resection in patients with PT-RMS
- To define the role of surgical assessment of retroperitoneal lymph nodes during PT-RMS staging



Methods

- Retrospective cohort study
 - Localized PT-RMS
- Merged data from 4 COG studies:
 - Low-risk (D9602, ARST0331)
 - Intermediate-risk (D9803, ARST0531)
 - 1997-2012
- Re-examined all surgical, imaging, pathology reports



Results

- 279 patients
 - Median 8 years
 - 121 \geq 10 years old
 - 92% low risk
 - 78% negative resection margins
 - 90% N0 on imaging
- 5-year EFS 92%
- 5-year OS 98%



Results

- Age ($p=0.28$), T-stage ($p=0.11$), N-stage ($p=0.39$), & pathologic node involvement ($p=0.53$) not associated with OS
- Age $\geq 10y$ + tumor size $\geq 5cm$:
 - additive negative impact on EFS ($p=0.03$) but not OS ($p=0.13$)



Results

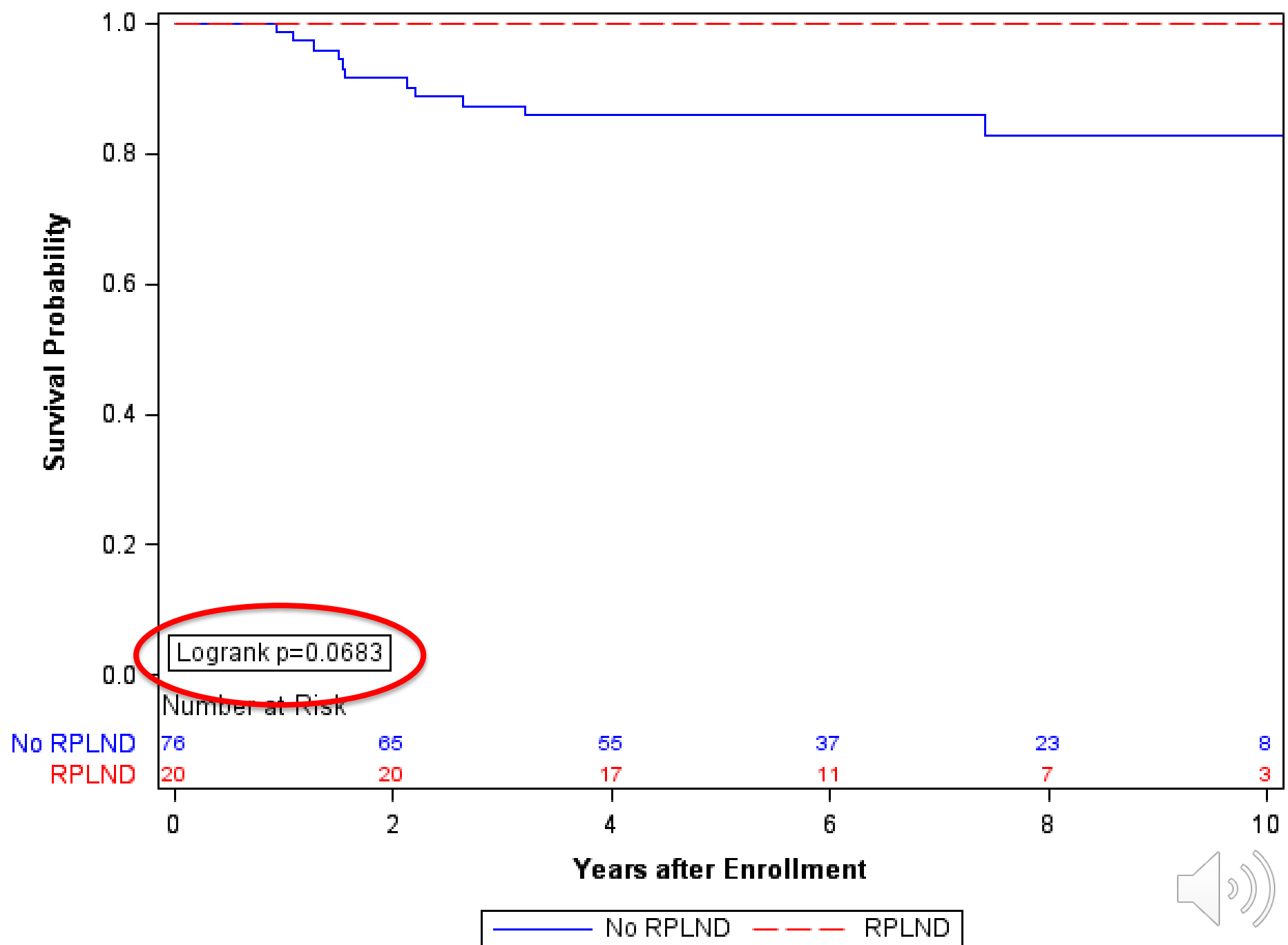
- Inguinal resection in 232 (86%)
- Trans-scrotal resection in 47 pts
- Tumor abutted tunica vaginalis in 29 pts
- 24 pts received RT/hemiscrotectomy
- No survival difference

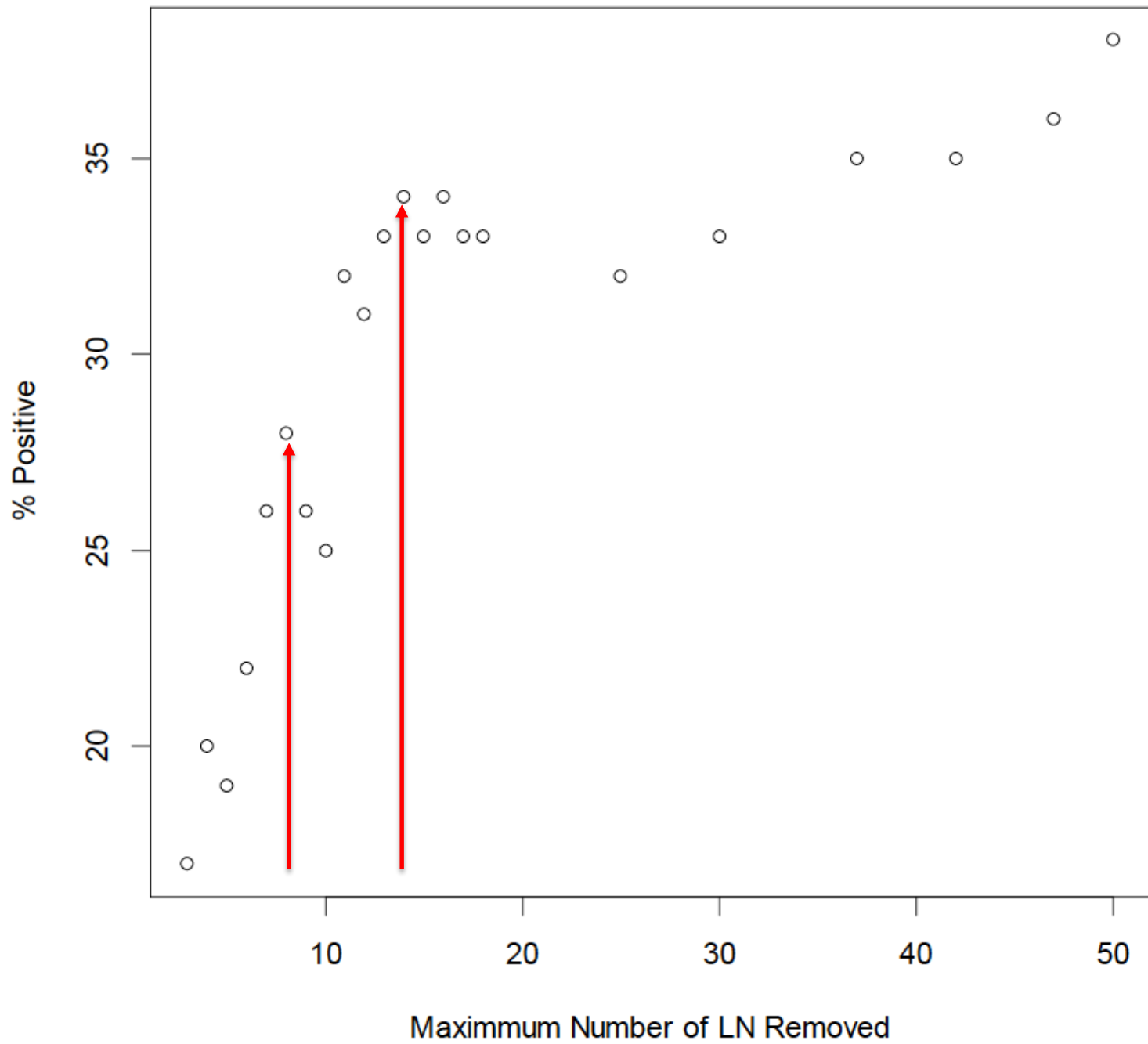


Results

- Only 21% ≥ 10 yo underwent RPLND
 - 29% underwent sampling
 - 10% technique unknown
 - 40% no nodes sampled
- Imaging alone missed 52% of pathologically positive RPLN pts







Limitations

- Multiple deviations from protocol
- Missing information
- Largest reported series, but still low numbers for analysis



Conclusions

- Excellent survival for PT-RMS
- Inguinal incision necessary to achieve local control
- Hemiscrotectomy likely unnecessary for most patients
 - Trans-scrotal resection
 - Microscopic positive margin due to tumor abutting the tunica vaginalis



Conclusions

- Imaging alone insufficient to detect nodal involvement in most patients
- RPLND recommended in ≥ 10 yo, N1 patients
 - 7-13 retroperitoneal nodes required to accurately identify nodal disease

