

PARATESTICULAR RHABDOMYOSARCOMA: IMPORTANCE OF INITIAL SURGICAL TREATMENT

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Aim of the Study: To evaluate factors associated with progression-free and disease-specific survival in patients with paratesticular rhabdomyosarcoma, we performed a cohort study. Also, since many patients present to our institution after initial therapy, we analyzed the effects of salvage therapy for scrotal violation.

Methods: We retrospectively reviewed all consecutive patients with histologically confirmed paratesticular rhabdomyosarcoma treated at our institution between 1978 and 2015. Fifty-one patients were identified; two were eliminated because of inadequate data, leaving 49 patients in our analytic cohort. Variables evaluated for correlation with survival included: TNM staging, margins at initial resection, presence of scrotal violation, hemiscrotectomy and/or scrotal radiation. The log-rank test was used to compare survival distributions.

Main Results: The median age and follow-up were 16 years and 6.9 years, respectively. The 5-year overall disease-specific survival was 78.7% (95% CI: 67.7-91.4 percent) and the progression-free survival 66.9% (95% CI: 54.8-81.6 percent). Median time to recurrence was 0.9 years. Scrotal violation occurred in 41% (n=20) and tripled the risk of recurrence for patients not appropriately treated with either hemiscrotectomy or scrotal radiation therapy (RR=3.0, 95% CI: 1.16-7.73). Results of univariate analysis are presented in the Table.

Conclusion: The strongest predictors of disease-specific survival were nodal status and distant metastasis at diagnosis. Scrotal violation remains a problem in paratesticular rhabdomyosarcoma and is a predictor of disease progression unless adequately treated. This could be reduced with appropriate initial resection.

Table. Correlation of variables with disease-specific and progression-free survival ($\alpha < 0.05$)

Variable	Disease-Specific Survival (DSS)	Progression-Free Survival (PFS)
T stage	Not significant	Not significant
N stage	0.001	0.001
M stage	0.005	0.003
Surgical Margin	Not significant	Not significant
COG-STS: Pretreatment Staging System	0.005	0.003
Scrotal Violation	Not significant	Not significant
Appropriate scrotal treatment after scrotal violation	Not significant	0.02