

Long term Survival of Children with Wilms Tumor

Insights from a Tertiary Cancer Center in a Lower-Middle-Income Country

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5-year overall survival

88.7%

Non-metastatic at diagnosis
263 of 376 children (69.9%)

68.7%

Metastatic
113 (30.1%)

Background and aim

Wilms tumor is the most common renal malignancy of childhood. Survival exceeds 90% in many high-income settings; earlier Pakistani series report about 60–70%. We describe long-term survival at a high-volume charity cancer centre in Pakistan, comparing children with and without metastases at presentation.

Methods

- Retrospective review of children under 18 years treated for Wilms tumor, January 2011 to December 2023
- SIOP-RTSG staging, treatment and risk grouping
- Kaplan-Meier survival compared with the log-rank test; follow-up to December 2025

The 376 children

Mean age (months)	38.4
Male	59.3%
From rural areas	66.0%
Abdominal mass at presentation	59.3%
Pre-operative chemotherapy	56.4%
Upfront nephrectomy	43.6%
Abandoned treatment	9.0%

Disease course by group

	■	■
High-risk histology	10.4%	28.7%
Remission at end of treatment	79.1%	57.5%
Relapse	17.5%	28.3%

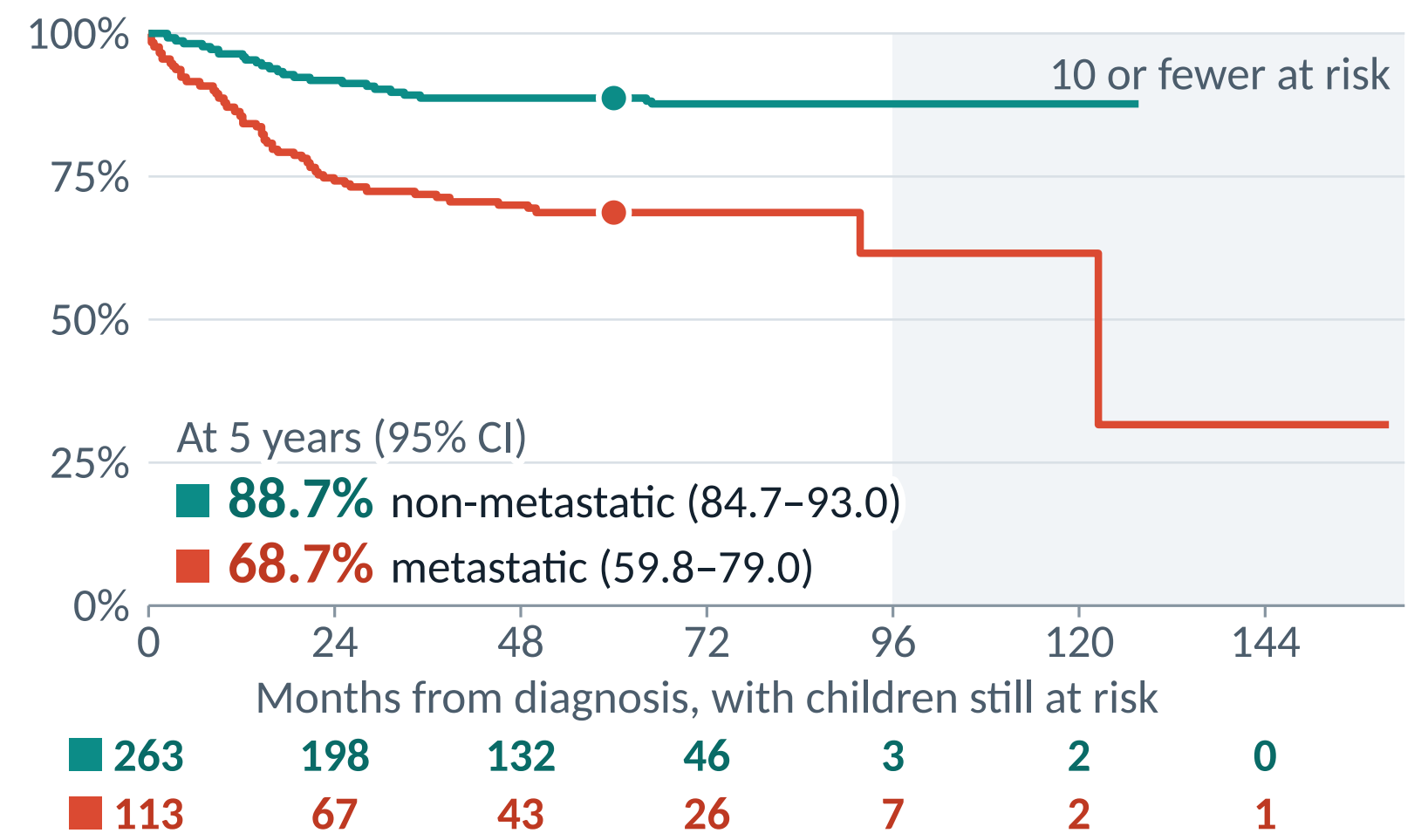
Conclusion

Survival at this tertiary centre is close to contemporary international benchmarks, particularly for **non-metastatic** Wilms tumor. **Metastatic** disease, present in three of every ten children at diagnosis, remained associated with lower survival, and most events occurred within two years. Timely diagnosis and referral, standardized multidisciplinary treatment, and prospective study of further prognostic factors remain the priorities.

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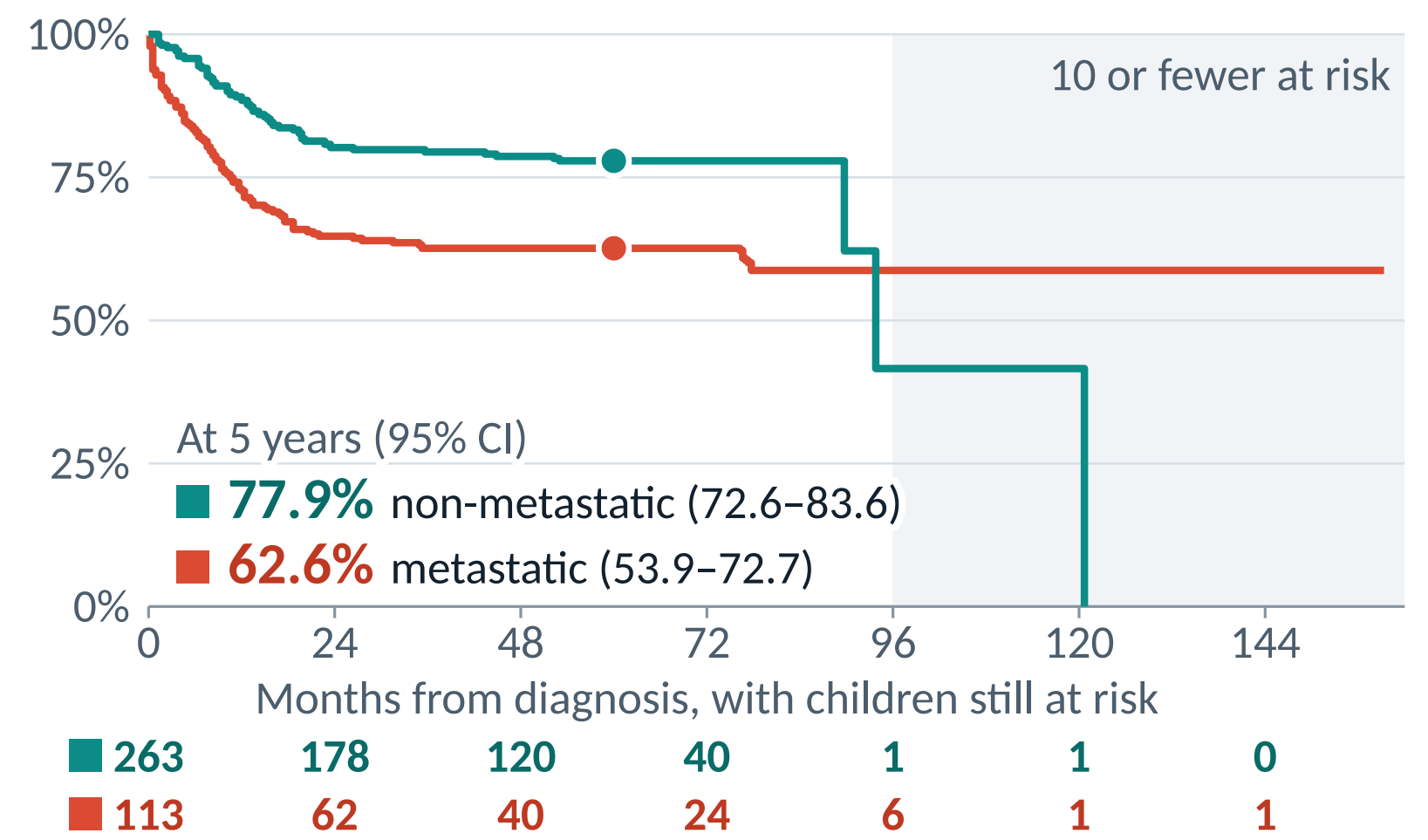
Overall survival

Log-rank p < 0.001



Event-free survival

Log-rank p = 0.002



Status at last follow-up

% of each group

Non-metastatic	69.6	12.9	9.9	7.6
Metastatic	46.0	14.2	28.3	11.5
	■ Alive, disease-free	■ Alive with disease	■ Died	■ Lost to follow-up