

OUTCOMES AND LOCAL CONTROL WITH XRT IN PATIENTS OF EWING SARCOMA

A 10-YEAR RETROSPECTIVE INSTITUTIONAL ANALYSIS AT SKMCH LAHORE

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BACKGROUND

Ewing sarcoma is an aggressive cancer in children and young adults, with local control remaining challenging in large or anatomically complex tumors. This study evaluated **local control and failure patterns after radiotherapy (RT)** at a tertiary cancer center.

METHODS

Retrospective observational study at Shaukat Khanum Memorial Cancer Hospital, Lahore.

- Histologically confirmed Ewing sarcoma
- External beam RT: Dec 2014–Dec 2024
- Large tumor: >5 cm
- Primary outcome: **local control**
- Secondary outcomes: **local and distant recurrence**

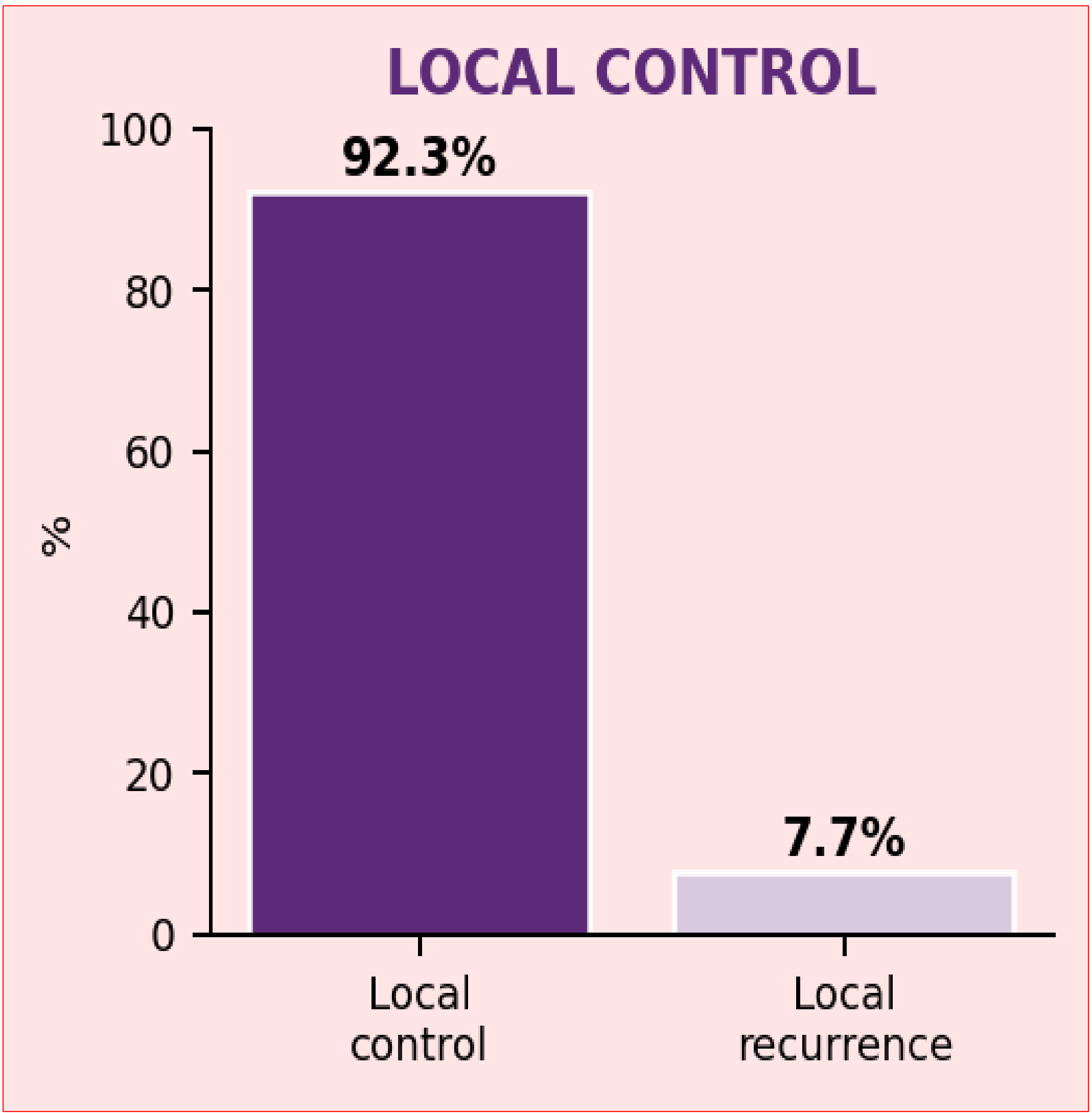
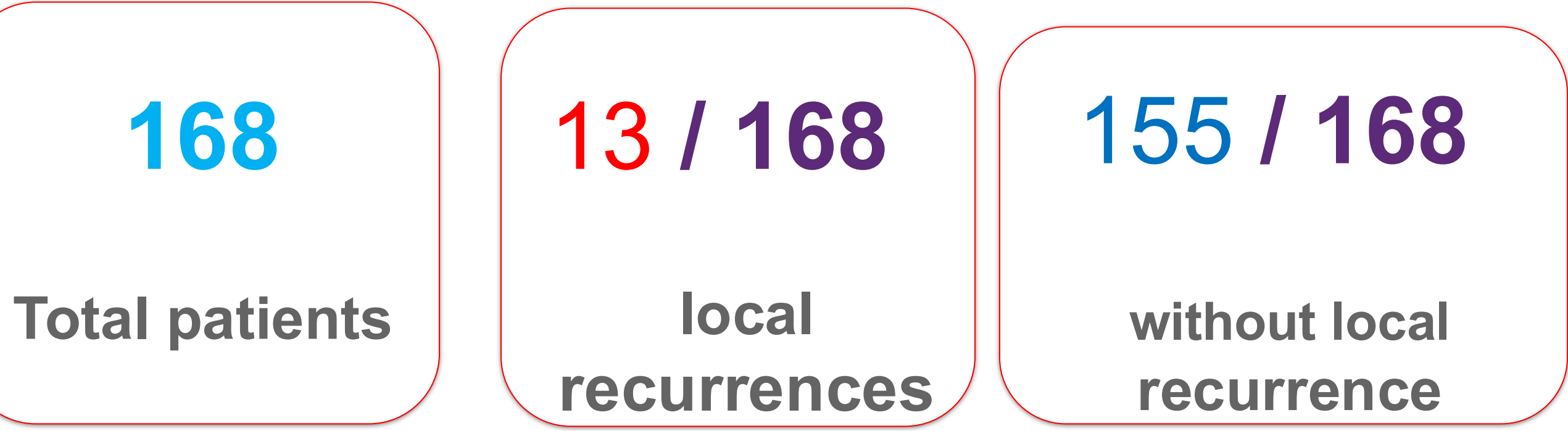
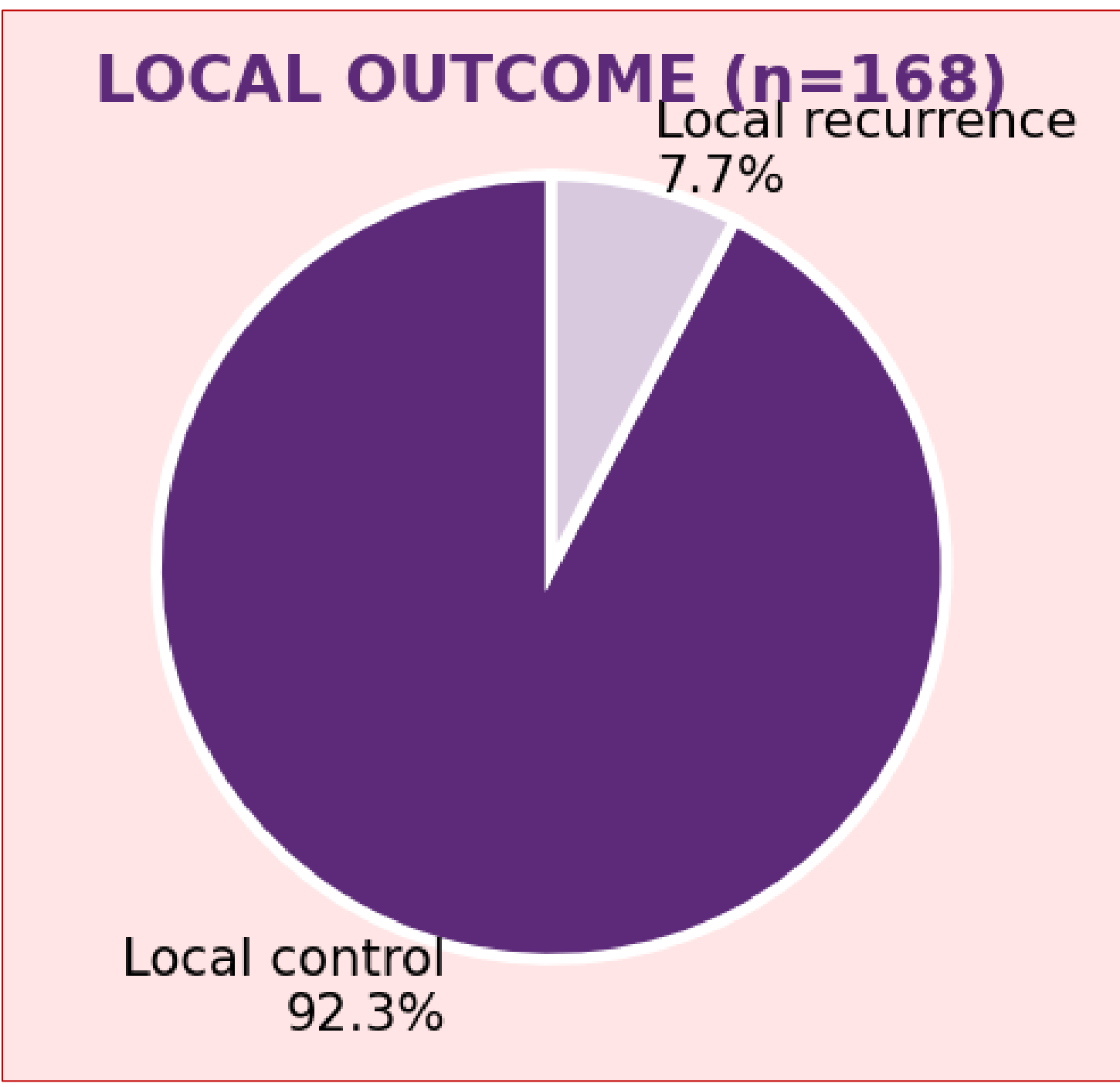
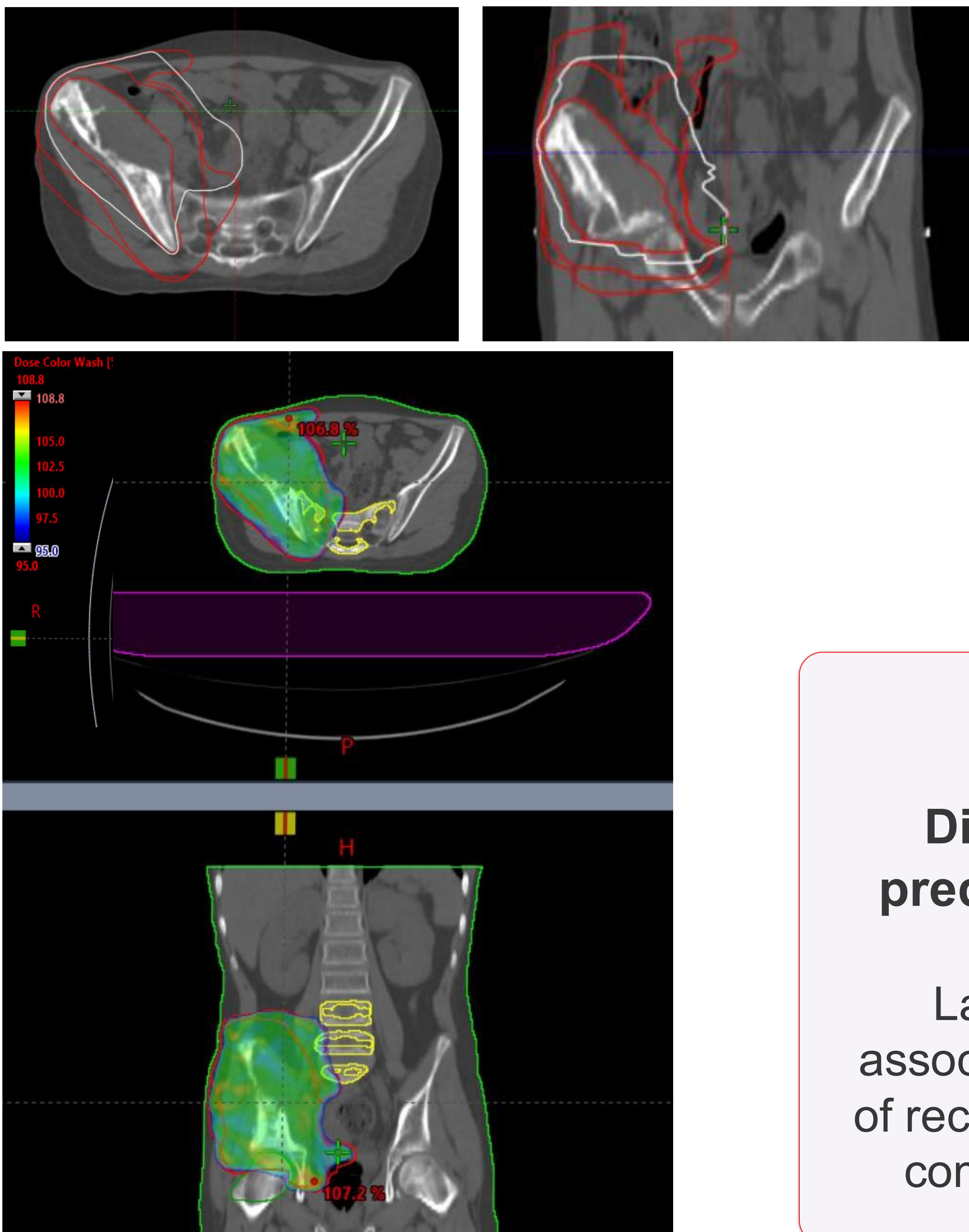
PATIENT & TREATMENT PROFILE

192 patients identified
Median age: 16 years

Most patients had tumors >5 cm and received multimodality treatment including chemotherapy, surgery and RT.

Challenging sites included pelvis, spine, chest wall, skull and other axial sites.

RESULTS



PATTERN OF FAILURE

Distant recurrence was the predominant mode of failure.

Larger tumors (>5 cm) were associated with a greater likelihood of recurrence and inferior outcomes compared with smaller tumors.

CONCLUSION

Radiotherapy achieved excellent local control in this Ewing sarcoma cohort, with a local control rate of more than 90% despite a predominance of large and anatomically challenging tumors.

Distant relapse remained the major cause of treatment failure, highlighting the need for improved systemic control strategies.

KEY TAKEAWAY

92.3% LOCAL CONTROL
13/168 local recurrences.
Modern RT provided effective local disease control, while distant relapse remained the predominant failure pattern.