



Extraskelatal Myxoid Chondrosarcoma: A High Incidence of Metastatic Disease to Lymph Nodes

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Background

- The incidence of nodal metastases in soft tissue sarcoma (STS) is infrequent and varies with histologic subtype
- Extraskelatal myxoid chondrosarcoma (ESMC) is a rare STS known to spread to lymph nodes
- Limited information is available on the incidence of metastatic disease to lymph nodes in ESMC

Objectives

- Determine the incidence of lymph node metastasis in patients with ESMC
- Analyze the implications of lymphatic spread
- Analyze outcomes of treatment for ESMC

Methods

- IRB approved, single institution study
- Retrospective review from 1982-2017
- 30 patients undergoing resection of ESMC
- Mean follow up 7±4 years

Demographic	
Mean Age	50±16 years
Male (Female)	21 (9)
Location:	
Lower extremity	23 (77%)
Upper extremity	4 (13%)
Chest wall	3 (10%)
Mean tumor size	9±5 cm
Mean tumor volume	490±833cm ³
Positive margin	3 (10%)
Re-excision of inadvertently excised	8 (27%)
Tumor grade	
High	6 (20%)
Intermediate	11 (37%)
Low	13 (43%)

Table 1. Patient and disease characteristics

Results

- **Lymph Node Metastases**
 - Lymph node metastatic disease in 6 (20%) patients
 - Preoperatively in 3 (10%) and postoperatively in 3 (10%)
 - All in lower extremity (p=0.31)
 - Lymphadenectomy in 5 patients and definitive radiotherapy in 1 patient
- **Overall Metastatic Disease**
 - Overall metastatic disease in 16 (53%) patients
 - Distant metastases: 10 (33%)
 - Distant and lymph node metastases: 5 (17%)
 - Isolated lymph node metastases: 1 (3%)
 - Risk factors for metastatic disease: larger tumor size (>9 cm, HR 4.36, p=0.01) and local tumor recurrence (HR 3.28, p=0.02)
- **Survival**
 - Overall 5- and 10-year rates of disease specific survival were 80% and 57% respectively
 - 10-year disease specific survival rates stratified by status of metastatic disease (Figure 1)
 - No metastases: 100%
 - Lymph node metastases: 62%
 - Other distant metastases: 0%
 - 5- and 10-year local recurrence free survival: 89% and 52%
 - Local recurrence in 8 (27%) patients
 - Positive surgical margin (HR 11.86, p=0.01) was a risk factor for local recurrence
- Mean MSTS93 was 79±21%
- Complications occurred in 9 (30%) patients
 - Most commonly wound complications (n=6, 20%)

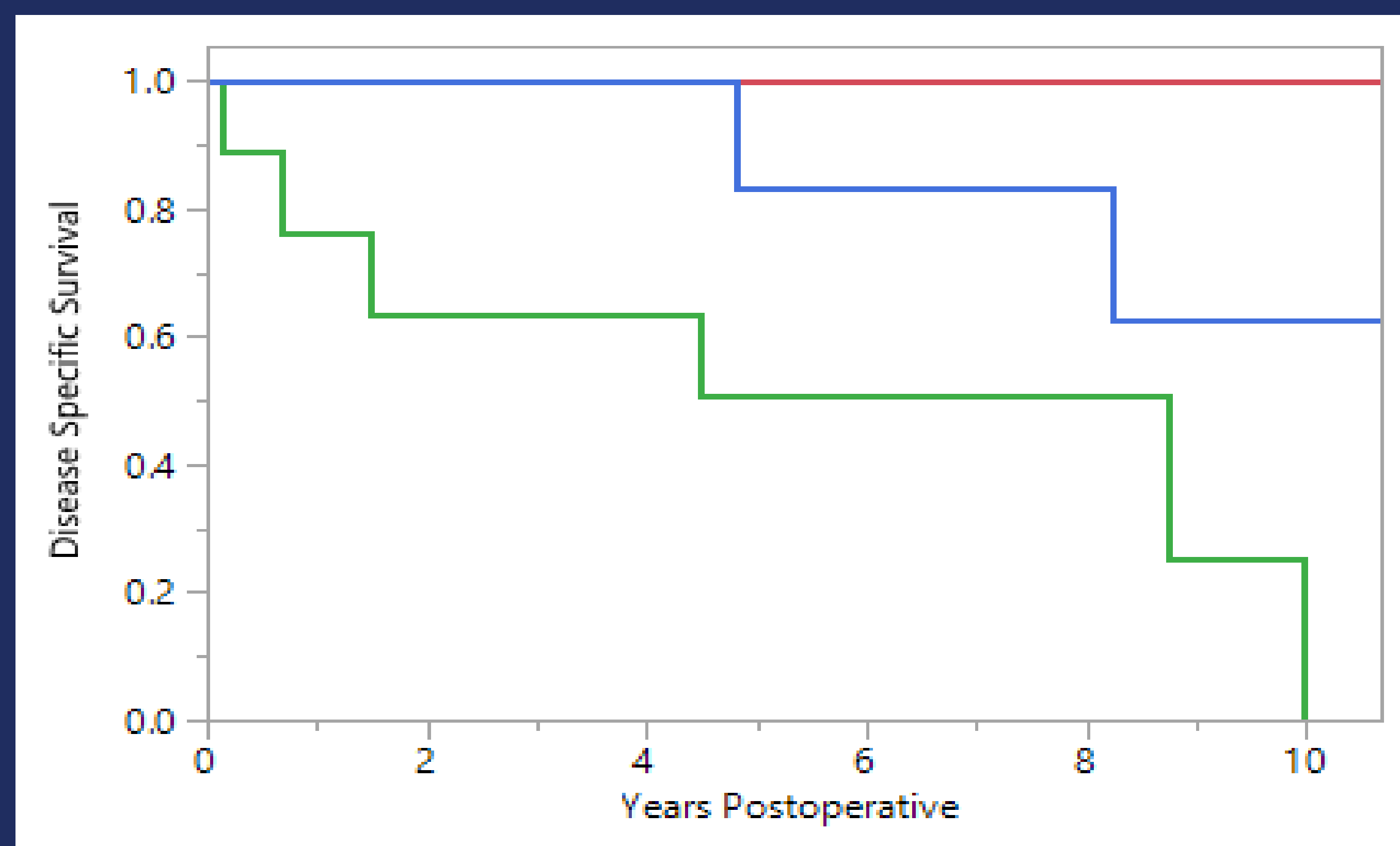


Figure 1: Following surgical resection at 5- and 10-years postoperative, patients with lymph node metastatic disease (83% and 62%, blue) had worse disease specific survival than patients without metastatic disease (100% and 100%, red), but better survival compared to those with metastatic disease elsewhere (50% and 0%, green) (p=0.0004).

Conclusions

- Patients with extraskelatal myxoid chondrosarcoma have a high incidence of lymph node metastatic disease
- Nodal metastases had negative implications on patient survival, but not as poor of implications as other sites of metastatic disease
- Preoperative staging of the lymph node basin in patients with ESMC is important, particularly in the lower extremity
- May warrant consideration for a sentinel lymph node biopsy