TITLE: Chest wall resections for sarcoma - the north of England experience

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ABSTRACT:

Aims: Bone and soft tissue tumours not infrequently arise from the chest wall. Resection may require removal of ribs and reconstruction using mesh, biological materials such as lyophyllised pig skin and muscle flaps. The purpose of this study was to review the experience of our multidisciplinary team in the management of chest wall resections for bone and soft tissue tumours.

Patients and methods: This was a retrospective review of patient records. Between 2001 and 2005, 20 patients of mean age 50.3 years (13 to 92) underwent resections involving the chest wall. Ten were male.

Results: The diagnosis was chondrosarcoma in 8, osteosarcoma in 3, PNET/Ewings in 2, MPNST in 2, sarcoma NOS in 2, and one each of leiomyosarcoma, pleomorphic MFH, and metastatic renal carcinoma. 15 patients underwent rib resection, four sternal resections and one tumour of the clavicle was removed with the underlying rib.

In 3 cases a latissimus dorsi flap was used as part of the chest wall reconstruction. The surgical margins were intralesional in 5, marginal in 11 and wide in 4 cases. Two patients died following a complication of treatment. Four patients died at a mean of 6 months (4 to 8 months) from metastatic disease. Two patients had local recurrence. At a mean follow up of 26 months (4 to 58) twelve patients were alive without evidence of disease, and two were alive with metastatic disease.

Conclusion: Chest wall resection for malignant bone or soft tissue tumours is feasible and can be achieved safely. However, there is a significant mortality rate associated with this procedure. This procedure demonstrates par excellence the value of multidisciplinary team working. Local anatomical constraints may mean that achieving a wide surgical margin is not always possible.