Giant Costal Chondrosarcoma in a Patient With Hereditary Multiple Exostoses

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A 73-year-old man with hereditary multiple exostoses (HMEs) presented with a 2-year history of a progressively enlarging mass over his left anterior chest wall (Fig 1A) causing discomfort, deformity, and significant functional impairment. Physical examination revealed a very large, hard, immobile mass that displaced the left nipple superiorly.

Computed tomographic scanning (Fig 1B) demonstrated a 35 × 20 × 15-cm, partially calcified mass with a predominant extrathoracic component, extending into the left anterior mediastinum and abutting the right ventricle. There was no radiologic evidence of metastatic disease.

Wide local excision of the mass (Figure 2) was performed with resection of the left fifth rib from which the mass arose. The resultant small chest wall defect did not give rise to a flail segment, and satisfactory reconstruction was achieved with a double-layered polypropylene mesh. Histologic analysis confirmed a low-grade chondrosarcoma with clear rib resection margins. The patient was discharged on the seventh postoperative day following uneventful recovery.

Malignant transformation to chondrosarcoma can develop in 0.5% to 10% of patients with HME [1]. To our knowledge, the occurrence of a giant costal chondrosarcoma arising in a patient with HME is rare, having been reported only once before [2].

References

Fig 1.

Fig 2.