

Giant Desmoid Tumor of the Chest Wall

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A 21-year-old man was referred to our hospital because of a right thoracic mass detected on a medical checkup. He was asymptomatic. There was no history of trauma or Gardner syndrome. Computed tomography revealed that the chest wall tumor involved the right first and second ribs (Figure 1A). The tumor occupied the right hemithorax and displaced the mediastinum to the left (Figure 1B). A combined clamshell incision and median sternotomy were performed. The tumor was resected en bloc with portions of the first rib, second rib, sternum, musculus pectoralis major, and clavicle. The chest wall was reconstructed with a 1-mm composite mesh (polypropylene/polytetrafluoroethylene). Mechanical ventilation was required for 2 weeks postoperatively because of respiratory failure. However, the patient recovered without any functional deficit. Histopathological examination confirmed a desmoid tumor measuring $23.5 \times 18 \times 11$ cm and weighing 2800 g. The specimen showed proliferations of spindle-shaped cells with slight atypia in a collagenous stroma. The surgical margins were free of tumor (Figure 2).

Desmoid tumors are relatively rare tumors derived from fascial or musculoaponeurotic structures. Pathologically they are benign but grow locally aggressive. If feasible, surgical resection of the tumor is the treatment of choice, but a high incidence of local recurrence has been reported.^{1,2} Reoperation and positive margins are associated with a high risk of local recurrence.¹ Therefore, it is essential to achieve local control by wide resection with tumor-free margins on initial treatment.

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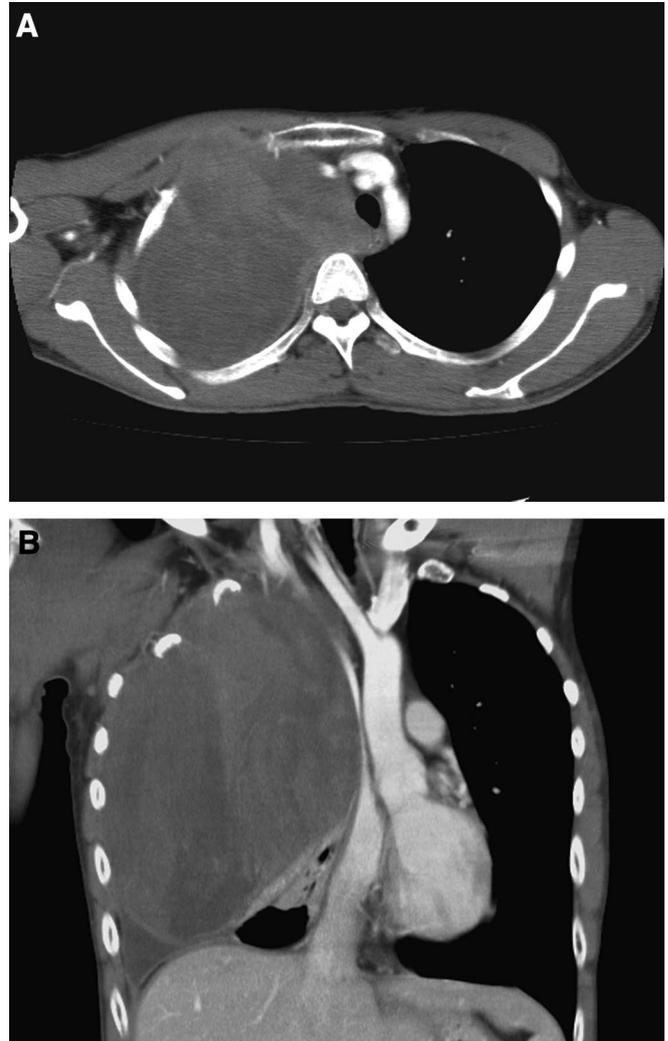


FIGURE 1. Computed tomography scans of the chest. A, Axial image. B, Coronal image.



FIGURE 2. Resected tumor.