PP-043

Large chondrosarcoma of the chest wall invading the toracic cavity and the spine

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Introduction: Chondrosarcoma is the most common primary tumor of the chest wall. In general this malignancies are not responsive to chemotherapy and radiotherapy. Successful treatment depends on early recognition and radical excision with adequate margins and immediate reconstruction. The authors present a case of a paravertebral chondrosarcoma invading the toracic cavity and the spine.

Case Report: A 39-year-old male was admitted with an extremely large mass in the right dorsal paravertebral region detected two months before. It was hard and painless. There were no neurological deficits or changes in respiratory function. A plain x-ray film of the chest revealed a large opacity with an ill-defined border on the right side. Chest computed tomography showed a lobulated tumor with calcific deposits, measuring about 13x7x6 cm, centered in the seventh rib, involving also the sixth and the eighth ribs. On magnetic resonance imaging, the tumor showed low to iso-intensity on T1-weighted images and irregularly mixed low to hight intensity on T2-weighted images. It extended into the thoracic cavity and spinal canal pushing the spinal cord. CT of the abdomen and pelvis and a bone scan showed no evidence of metastatic disease. A CT guided biopsy confirmed grade 1 chondrosarcoma. We performed na intralesional surgery, including the resection of the posterior portion of 6th-9th ribs and the spinous processes and laminas of the 6th-8th thoracic vertebra for tumor resection and decompression of the spinal canal. Chest wall reconstruction included the coverage of the soft tissue defect with a polytetrafluoroethylene (Gore-Tex) prosthesis. The spine was stabilized with transpedicular instrumentation (T5-T11). The patient had an uneventful postoperative course. The definite pathological diagnosis was grade 1 chondrosarcoma. Three years after the operation, the patient is alive without any evidence of recurrence.

Discussion/ Conclusion: Large chondrosarcomas of the chest wall are difficult lesions to treat because of the anatomic proximity of vital neurovascular structures and the limited surgical margins that can be achieved. Sometimes, intralesional surgery cannot be avoided in the case of a large tumor originating in the chest wall.
A good prognosis in terms of survival can be expected, even in the cases in which adequate wide resection cannot be achieved, so long as the histologic malignancy grade is low.

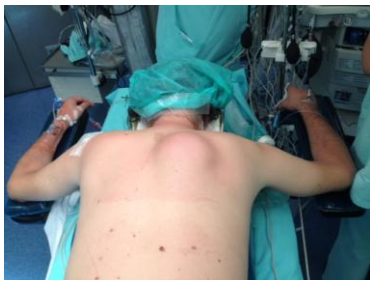

Figure 1. *Inspection*

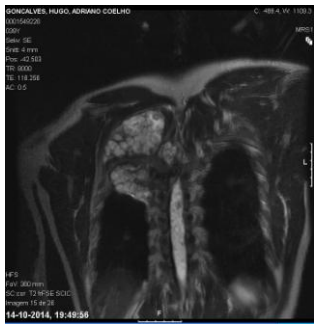

Figure 2. *MRI 1*

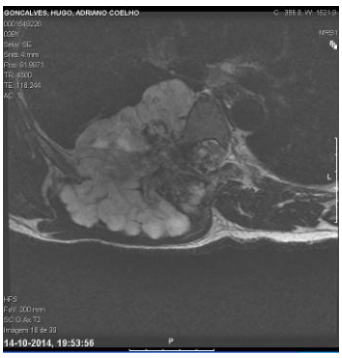

Figure 3. *MRI 2*

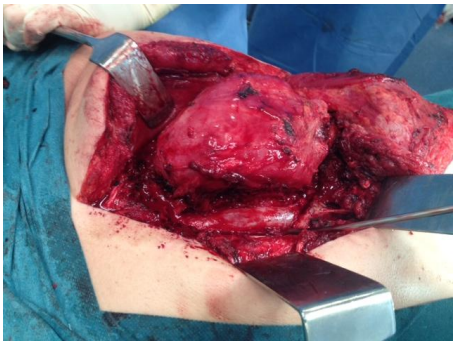

Figure 4. *Surgery*

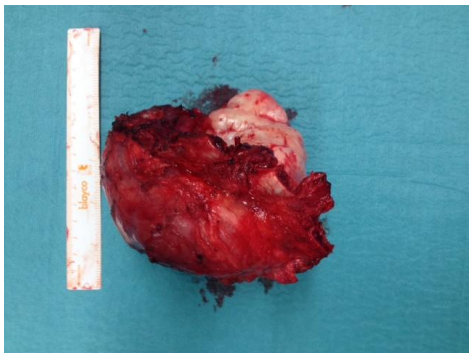

Figure 5. *Ressected specimen*