A Case of Extraskeletal Osteosarcoma of the External Ear

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Extraskeletal osteosarcoma (ESOS) is an extremely rare malignancy arising from the soft tissue. The predominant site of origin of ESOS is the lower limbs, the thigh. ESOS arising in the head and neck region is extremely rare. This is the first report of ESOS of the ear, to the best of our knowledge. We describe a case of ESOS arising from the subcutaneous tissue in the cartilaginous external acoustic meatus.

A 53-year-old man consulted our ENT department in the end of May 2009, complaining of inability to insert a cotton bud into the external acoustic meatus. Examination revealed an elastic-hard tumor arising from the posterior wall of the meatus, occluding the cartilaginous meatus. The eardrum was intact. Plain CT of the temporal bone showed calcification of the lesion arising from the meatus. There was no evidence of bone involvement. Biopsy performed in the middle of July revealed suspected chondrosarcoma. At the beginning of August, an operation was performed; the tumor was removed en bloc with the surrounding tissues including a part of the auricular cartilage, the temporal periosteum, and the meatus skin. Pathological examination confirmed the diagnosis of ESOS. At present, the patient is still alive with no evidence of recurrence of the disease.

Keywords: extraskeletal osteosarcoma, external ear, head and neck

References
The tumor occupying the posterior half of the external acoustic meatus.

Histopathological findings of the tumor
Neoplastic cartilage dominates the marginal zone and neoplastic osteoid and bone dominate the central zone, which indicates an extraskeletal osteosarcoma of the chondroblastic type. (HE stain, ×100)

The white tumor existed apart from the temporal periosteum and auricular cartilage, which indicated the tumor had arisen from the subcutaneous tissue.

The tumor removed from the right external ear.