VERTEBRAL OSTEOBLASTOMA (REPORT OF THREE CASES)

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Osteoblastoma of the spine is rare, accounting for 5 to 10.6 % of primary bone tumors of the spine other than myeloma. About 25-40 % of the osteoblastomas occur in the axial skeleton. They are most often encountered in the lumbar, thoracic, cervical spine and sacrum decreasing in frequency respectively. Here, we report three cases of osteoblastoma that had occurred in the first, second and third lumbar vertebrae. Patients were fifteen, nine and twentythree years old respectively. Low back pain was the most prominent symptom. All three patients were treated with marginal surgical excision. At last follow-up, after at least twelve months, no evidence of recurrence was observed.

Key words: *Osteoblastoma, spine.*

Osteoblastoma is rarely seen in spinal column and forms the 5-10,6 % of primary vertebral tumors. Approximately 25-40% of osteoblastomas occur in the axial skeleton. Osteoblastoma most frequently involves the lumbar thracic and cervical vertebrae. We are presenting three vertebral osteoblastoma cases involving L1, L2 and L2-3 who were admitted to our clinic and were followed longer than one year. Complaints of the patients were pain only. Surgical excision was performed for all patients. Neither neurological involvement nor radiological recurrence was detected during the follow-up period in the patient who were followed clinically and radiologically.

CASE 1

Fifteen years old female patient was seen because of pain continuing for one year. It was learned that pain showed continuity in this period and its severity did not change during time. There were no important findings in patient's self and family history. In clinical examination the only findings was paravertebral muscle spasm. Round, lytic lesion involving the L1 vertebra posterior elements and destroying the pedicle was detected by X-ray. The routine laboratory values of the patient was within normal limits. With these findings, surgical excision to the patient was planned with the pre-diagnosis of vertebral osteoblastoma. Approaching posteriorly, the mass adhering to the L1 lamina was removed as a block by partial laminectomy. In the postoperative follow up, no neurological complication occured. The patient clinically improved completely. After 30 months follow up, the patient had no clinical complaint and no radiological pathologic finding was detected.

CASE 2

Nine years old male patient admitted to the Orthopedics Clinic because of the pain continuing for three months and getting better by analgesics. From his history it was learned that he didn't have any previous treatment. Only paravertebral muscle spasm was found in physical examination. C.B.C., E.S.R., blood chemistry were within normal limits. Direct radiogram revealed a round, lytic lesion involving the L-2 vertebra posterior elements. Biopsy was planned with a pre-operative diagnosis of vertebral osteoblastoma. The mass was excised en-bloc utilizing L-2 partial laminectomy. After the operation patients symptoms resolved completely. After twenty-one months follow-up no recurrence was noted.

CASE 3

Twenty-three years old male patient was seen at the Orthopedics Clinic with the complaint of back pain continuing for seven years. From his history it was learnt that his pain was continuous, did not see any benefit from physiotherapy, operated with the diagnosis of disc hernia at the level of L5-S1 by neurosurgeons at a hospital two years after the beginning of pain and reacted well to analgesics. In physical examination it was confirmed that neurological status was intact and no pathologic findings were detected. In direct radiology, lytic lesion destructing the pedicle involving the L2-3 vertebra pedicles was seen and confirmed by computerized tomography. Approaching the phatient from posterior, the mass was removed totally by L3 hemilaminectomy with the pre-diagnosis of vertebra osteoblastoma. In the postoperative period, no complications occurred. After the 32 months follow up, it was observed that the patient's complaints had completely resolved and no recurrence had occurred.

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DISCUSSION

Osteoblastoma is a benign characterized tumor holding the vertebral column infrequently. Osteoblastoma and osteid osteoma are osteoblastic lesions differing from each other mainly by their sizes. Lesions smaller than 2 cm are called as osteoid osteoma (1).

Osteoblastoma is seen more frequently between ages of 10-30. The patients in this report were also within the age period above. As it is seen in our patients, the pain exists continuously, independent of the activity and reacts well to the analgecis. It is widely accepted that the pain reacts well to the aspirin but having no response does not rule out the diagnosis. Direct radiogram is important for the diagnosis. However, small lesions may not be seen. Computerized tomography demonstrates the lesion well, but if the sections do not pass from the appropriate level or if they are taken very thick, they may not be seen. The most sensitive method in the diagnosis is bone scintigraphy (3). Although we did not confirm in our patients, in the literature, it is declared that osteoblastoma may cause severe spinal deformities. Marsh and coworkers (2) stated that they have found 50 % scoliosis for tumors of thoracolumbal region. Pettine and Klassen (3) give this ratio as 63 %. In both groups, after tumor excision, decrease in the severity of scoliosis were reported for the patients having symptoms for less than 15 months.

As a result, in osteoblastoma treatment, total excision of tumor yields satisfactory results. In the long term follow up, complaints of the patients end either completely or at least substantially. For our three patients, all of their complaints were resolved and recurrence was not observed.

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