

BENIGN TUMORS OF THE SPINE IN CHILDREN

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We would like to present three kinds of the benign tumors of the spine from 1988 to 1994 3 patients with benign tumors of the spine were treated in our clinic.

Osteochondroma, aneurysmal bone cyst, and osteoid osteoma were treated with laminectomy and resection of the tumor. Stabilisation was obtained with bone grafts and recurrence wasn't seen in the follow up period up to this time.

Key Words: Benign tumors, spine, Pediatric

Benign tumors of the spine are not common in the children.

Osteochondroma is a bony tumor, which develops by progressive enchondral ossification in anomalous foci of metaplastic cartilage in the periosteum they make up about 8.5% of all bone tumors and about 36% of benign tumors (10). Osteochondroma occurs in a solitary form or in a multiple form called "multiple exostoses" or "osteochondromatosis".

Osteoid osteomas make up about 11% of all benign tumors. Osteoid osteomas occurs in the spine 10-18%. Tumor mostly occur in the facet joint and pedicul. The plain roentgenograms, CT and skeleton scintigraphy are very helpful for diagnosis (4, 6).

Aneurysmal Bone Cyst, first described by Jaffe and Linchenstein in 1942, comprises approximately 1.4% of all bone tumors and occurs in the spine in approximately 1.4% of all bone tumors and occurs in the spine in approximately 20% of cases (5). They may initially be diagnosed as acute paraplegia and two-stage anterior and posterior resections, with spinal stabilisation, are often required (5, 7).

Case Report 1. A four years old boy was seen for the first time in april 1988. His complaints were pain and dorsal swelling. Clinical examination showed 1 and 1 cm. rigid tumor at the level of T10. CT scanning report was benign bone tumor on the left transvers proces of the T10 vertebra.

The diagnoses of osteochondroma was performed by complete excision of tumor and pathology report. The patient was followed up with CT scanning and two control were normal.

Case Report 2. A two years old girl seen at our clinic. The pain was very mainly complaint of the pa-

tient CT report was very typical and sclerotic nidus has been seen. The tumors measurement is 12 and 15 mm. and sharp ridged. It was in the spinos proces and lamina at C4 level. Operation is the posterior tumor resection and laminectomy.

Case Report 3. A six years old boy with a history of intermitent back pain and bilateral lower limb paresthesia since two months. Clinical examination showed pain and swelling on the level of L4 vertebra. The left hip flexors and hamstrings were weak. The left thigh was two centimeters less than the right, the tendon reflexes were negative operation is partially laminectomy of L 3-L 4-L 5, and biopsy by posterior approach. Corpectomy of L4 vertebra and grafting has been done.

DISCUSSION AND RESULTS

The surgical resection is the best way in the treatment of benign spine tumors (4, 1). Osteochondromas are rarely seen on spine; They were found on spine in less than 2.5% of the localisations of this tumor for Bell and 3.3% or Dahlin (2, 9). Osteochondromas are beleived to arise throught lateral displacement of a portion of the epiphyseal growth cartilage. Therefore, they don't occur in bones that develop through membranous ossification (10).

Osteoid osteomas can be diagnosed by algic scoliosis, plain radiographs and CT scanning; Surgical resection of the tumor is almost always necessary (1).

Aneurysmal bone cysts sometimes heal spontaneously and may be recurrence even though surgical treatment. The radically surgical resetcion and radiotherapy may be necessary for these aggressive tumors (3, 11). Complete excision and fusion was necessary both anteriorly and fusion was necessary both anteriorly and posteriorly because of marked spinal instability (8).

As a result, we would like to say the surgical resection is the best method for treatment of benign tu-

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mor of the vertebra. We didn't find recurrence in our 3 cases.

REFERENCES:

1. Alici, E. Spinal Tumors, European Spinal Deformities Society First Congres. (Rome, April, 16-19, 1986. Congres Book, p. 120, 1986).
2. Bell MS: Benign cartilagineous tumours of the spine. A report of one case together with a review of the literature. Br. J. Surg. 58: 707-711, 1971.
3. Campanacci M., Capanna R., Pieci P. Unicameral and Aneurysmal Bone Cysts, Clin. Orthop. 204: 25, 1986.
4. Enneking, W.F.: Musculoskeletal Tumor Surgery, Volume 2. Churchill Livingstone, 1983.
5. Hay MC, Paterson D, Taylor TKF: Aneurysmal bone cyst of the spine. J. Bone and Joint Surgery. 60-B: 406-411, 1978.
6. Healey J.H., Ghelman B.: Osteoid osteoma and osteoblastoma Clin. Orthop. 204: 76, 1986.
7. Nicastro, J.F., and Leatherman, K.D.: Tw stage resection and spinal stabilization of aneurysmal bone cysts. A report of two cases. Clin. Orthop. 180: 173, 1983.
8. Peter Mc Donald, Mery Letts, Garnet Sutherland, Helmut Unruh: Aneurysmal Bone Cyst of the Upper Thoracic Spine. Clin. Orth. 279, 127-132, 1992.
9. Roblod P., Alcalay M., Casanare F., Levy P., and Bon-toux D. Osteochondroma of the Thoracic Spine. Spine, vol. 15, N. 3, 240-244, 1990.
10. Steffen Albrecht, M.D., J. Stewart Crutchfield, M.D., and Gary K. Segall, Ph. D., M.D. On spinal osteochondromas, j. neurosurgery. V. 77, 247-252, Aug. 1992.
11. Stilweel, W.T., Fielding, J.W.: Aneurysmal Bone Cyst of the Cervicodorsal Spine, Clin. Orthop., 187: 144, 1984.