



POSNA

The Core Curriculum

Giant cell tumor

Objectives

1. Describe symptoms and physical signs associated with giant cell tumor
2. Describe the radiographic features of giant cell tumor
3. Discuss the prognosis of giant cell tumor
4. Discuss initial management of giant cell tumor

Discussion point

1. How common is giant cell tumor in skeletally immature patients?

Discussion

Giant cell tumor is uncommon, and is generally classified as a benign bone tumor, although its behavior can be more aggressive than any other benign tumor of bone. Giant cell tumors of soft tissue have also been reported. About 50% of all giant cell tumors occur about the knee, the distal radius and proximal humerus are also frequent sites. Symptoms are swelling and pain. It is predominately a tumor of young adults, only 1.8% of 326 giant cell tumors studied at the Instituto Rizzolo in Bologna occurred in skeletally immature patients. Radiographically, giant cell tumors have a juxtaarticular location, typically involving both epiphysis and metaphysis. Cortical penetration and soft tissue masses are not rare. Treatment of giant cell tumor is generally by curettage, supplemented with high speed burr and/or phenol application to the wall of the tumor; packing with cement may lower the rate of recurrence. Marginal or side en bloc resection is more effective, but carries more morbidity. "Benign" pulmonary metastases have been reported at a rate of 3%. A genetic marker that appears to predispose to metastases has recently been identified. Treatment of giant cell tumors is best performed at a center experienced with its management.

References

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