

Chapter 159

Benign Bone Tumors



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What population is most likely to form an osteoid osteoma?

Young males in the second or third decade of life?

What is the typical presentation of an osteoid osteoma?

Pain that is worse at night. Pain will improve with use of NSAIDs

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Why are NSAIDs effective in treatment?	Cyclooxygenases and prostaglandin E ₂ is elevated by this benign bone mass. NSAIDs will reduce these levels
What are characteristic findings of radiographs?	Cortical radiolucent nidus <1.5 cm surrounded by reactive bone
What is needed to make diagnosis of an osteoid osteoma?	Plain radiographs are typically diagnostic with biopsy rarely needed to confirm
What is the most common benign bone tumor?	Osteochondroma
What disease is the most common benign bone tumor associated with?	Multiple hereditary exostosis (MHE)
What is the gene of mutation and inheritance pattern?	EXT1. Autosomal dominant with variable penetrance. Affect the prehypertrophic chondrocytes of the physis
What is the treatment for MHE?	While surgery for resection is an indication if lesions are large enough to cause symptoms, many patients can be followed-up with observation alone. Most patients are asymptomatic and never seek medical attention at all
Where are giant cell tumors typically found?	Metaphysis of long bones in middle age (30–50) females
How do they appear on radiographs?	Eccentric lytic lesions
