

Enchondroma

The enchondroma is one of the most common benign tumors seen in the skeletal system. It is centrally located and in 50 per cent of the cases will be found in small tubular bones of the hands or feet where it arises as a hamartomatous process and frequently remains undiagnosed throughout the life of the patient until such time as a pathological fracture through the lesion occurs. The lesion has a typical geographic pattern with sharp margination and will frequently demonstrate matrix calcification, especially as the patient ages. In the hand or the foot, the lesion frequently causes marked thinning of the surrounding cortex and dilatation of the bone, whereas with enchondromas found in larger bones, there is minimal evidence of cortical invasion and little if any cortical thinning or dilatation. It is rare for an enchondroma to convert into a chondrosarcoma in the hand or foot, but in larger bones such as the femur or pelvis, a primary enchondroma can convert very gradually into a low-grade chondrosarcoma. The incidence of conversion is less than 5 per cent of cases and almost always in adults.

In most cases, the enchondroma will be discovered as an incidental finding. Because it is asymptomatic and not disabling, there is no need to biopsy or bone graft the lesion unless, of course, the patient develops an interest in a specific sport or occupational activity that would put them at risk for fracture. In the case of an acute fracture, it is best to wait until the fracture heals and then consider the patient for a bone grafting procedure at a later date.