

# Osteogenic tumours

## Osteogenic tumours

These tumours characteristically produce osteoid or bony matrix, which may be seen on imaging studies or on histological examination. Osteoid osteoma ( Figures 42.11 and 42.12 ) is a benign bone-forming lesion that is small but very painful. Usually, pain occurs at night and is typically relieved by non-steroidal anti-inflammatory medication. Osteoid osteomas usually occur in children and adolescents. They can arise in any bone, particularly the proximal femur, and cause a dense cortical reaction in the centre of which is a nidus ( Figure 42.12 - - ).

Figure 42.11 Radiograph showing an osteoid osteoma of the tibial diaphysis with reactive bone formation (arrow). (a) (b) Figure 42.12 (a) Axial computed tomography (CT) scan showing an osteoid osteoma nidus in the distal tibia (arrow). (b) CT-guided radio-frequency thermocoagulation of an osteoid osteoma of the distal tibia. The scan shows the electrode in situ (arrow).

Malignant bone tumours /uni25CF /uni25CF /uni25CF /uni25CF Osteoid osteomas can cause irritation and effusions if they occur close to a joint. Osteoblastoma is the larger (>2 /uni00A0 cm), more aggressive counterpart of osteoid osteoma and more typically occurs in the spine. Osteosarcoma ( Figure 42.4 ) is a malignant bone-forming tumour, most common in the distal femur, followed by the proximal tibia, proximal humerus and distal tibia. The radiological and histological classification of osteosarcomas includes sclerotic ( Figure 42.4 ), chondroblastic, telangiectatic and other more unusual forms. Usually, osteosarcomas are intraosseous, but they can also arise from the surface of bones. Parosteal osteosarcoma ( Figure 42.13 ) is a low-grade osteosarcoma that arises from the surface of the bone, typically of the distal femur or proximal tibia. Symptoms are often mild and longstanding. Summary box 42.4 Tumours producing bone /uni25CF /uni25CF /uni25CF

Plasmacytoma - solitary form of multiple myeloma Osteosarcoma - usually secondary to Paget's disease and radiotherapy in older patients Chondrosarcoma Ewing's sarcoma Osteoid osteoma - small, painful; produce dense cortical reaction Osteoblastoma - larger and more aggressive than osteoid osteoma Osteosarcoma - malignant; commonest in lower femur and upper tibia

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