

Secondary Osteosarcoma – Pagetic Sarcoma

There are multiple diseases of the skeletal system that can result in a secondary form of osteosarcoma (OGS), most likely brought about by a second mutation at a later age in a patient with chronic benign disease. These diseases include Paget's disease, osteoblastoma, fibrous dysplasia, benign giant cell tumor of bone, bone infarcts, and chronic osteomyelitis. The most common of this group is Paget's disease, a non-specific inflammatory osteomyelitis of bone seen in older patients that may be induced by a viral infection. Approximately one per cent of patients with Paget's disease can go on to Pagetic osteosarcoma which accounts for three per cent of all osteosarcomas. The most common location for this secondary OGS is in the humerus, followed next by the pelvis and femur. The patients typically have a long history of dull, aching pain from their inflammatory Paget's disease but then suddenly develop an acute new pain in the area of the older pain with X-ray evidence of recent lysis and destruction of old Pagetic reactive bone. The prognosis for survival in this secondary form of osteosarcoma is extremely poor with only about eight per cent surviving, mainly because the older age group in which the disease occurs makes it impractical to implement the aggressive therapy protocols used in younger patients.