

Multicentric Osteosarcoma

The multicentric variant of the osteosarcoma (OGS) is an extremely rare variant occurring in approximately 1 per cent of all osteosarcomas. It has two distinct categories: 1) Synchronous multicentric OGS, occurring in childhood and adolescence. This is the more severe variant, considered to be extremely high grade with a very poor prognosis. It presents with multiple sclerotic lesions in a fairly symmetrical fashion in long bones, mostly in the lower extremities. Because of the heavy tumor burden associated with multiple lesions throughout the skeleton, the alkaline phosphatase is frequently elevated. 2) Metachronous multicentric OGS, occurring mainly in adults, is less aggressive than the synchronous form seen in children, presenting usually with a solitary lesion. Later on, more lesions develop that are multifocal in nature. The possibility of metastases cannot be ruled out. These forms of OGS are quite resistant to chemotherapy and surgical treatment is frustrating because of the multiple foci of involvement must be treated conservatively rather than with radical resections commonly used for monostotic disease.