Leiomyosarcoma

Leiomyosarcoma of bone is an extremely rare diagnosis with fewer than 50 cases in the world literature. It occurs typically in middle to older age adults in the same locations in the skeleton as fibrosarcoma, malignant fibrous histiocytoma (MFH), and osteosarcoma – the distal femur, proximal tibia and upper humerus. Radiographically, these lesions have a permeative lytic appearance, similar to a lymphoma, with extensive cortical breakdown and extension into the surrounding soft tissue. Histologically, the malignant spindle cells with collagen formation look like a fibrosarcoma or MFH so the only way a diagnosis can be established is by using the specific immunohistochemical staining for smooth muscle protein. Treatment usually consists of wide surgical resection and prosthetic implantation. Because of the poor prognosis with high-grade lesions, they are frequently treated with adjuvant therapy including local radiation therapy and chemotherapy, which is not very effective for this tumor, especially in an older age group.