Soft Tissue Fibrosarcoma

The soft tissue fibrosarcoma is clinically very similar to the malignant fibrous histioctytoma (MFH), except for the absence of malignant-appearing histiocytes. The fibrosarcoma is less common than the MFH and occurs in a slightly younger age group between the ages of 30 and 55 years, with equal involvement in males and females. This tumor can be very low grade, similar to a desmoid tumor, in which case it grows slowly and is relatively painless. The high-grade lesions are faster growing, more painful and carry a worse prognosis. This tumor tend to affect deep fascial structures, around muscles, usually in the area of the knee and thigh but also in the forearm and leg. Grossly, the fibrosarcoma has a firm, lobulated pattern with a yellowish-white to tan coloration. Occasionally, there will be calcific ossifying deposits on X-ray examination. Histologically, the fibrosarcoma is composed of spindle cells that form collagen fiber with varying degrees of mitotic activity from Grade I through Grade III or IV, but no malignant histiocytes are seen.

The treatment and prognosis depend on the grade of the tumor, with the Grade I lesions behaving much like a desmoid tumor with a very slight potential for pulmonary metastases, whereas the Grade IV have a high potential for metastasis to the lung in about 50-60% of cases. It is rare to see lymph node involvement. Treatment consists of wide surgical resection. With the larger deep lesions, this is usually followed by local radiation therapy up to 6500 centigray, however the use of adjuvant chemotherapy is considered controversial. As in the treatment of MFH, chemotherapy is not usually advocated.