

(\*De RadioGraphics y el Instituto de Patología de las Fuerzas Armadas).

\*Resúmenes enviados y publicados con autorización de la RSNA.

## From the Archives of the AFIP

### Benign Musculoskeletal Lipomatous Lesions<sup>1</sup>

*Mark D. Murphey, MD • John F. Carroll, MD • Donald J. Flemming, CAPT, MC, USN • Thomas L. Pope, MD • Francis H. Gannon, MD Mark J. Kransdorf, MD*

Benign lipomatous lesions involving soft tissue are common musculoskeletal masses that are classified into nine distinct diagnoses: lipoma, lipomatosis, lipomatosis of nerve, lipoblastoma or lipoblastomatosis, angioliipoma, myoliipoma of soft tissue, chondroid lipoma, spindle cell lipoma and pleomorphic lipoma, and hibernoma. Soft-tissue lipoma accounts for almost 50% of all soft-tissue tumors. Radiologic evaluation is diagnostic in up to 71% of cases. These lesions are identical to subcutaneous fat on computed tomographic (CT) and magnetic resonance (MR) images and may contain thin septa. Lipomatosis represents a diffuse overgrowth of mature fat affecting either subcutaneous tissue, muscle or nerve, and imaging is needed to evaluate lesion extent. Lipoblastoma is a tumor of immature fat occurring in young children, and imaging features may reveal a mixture of fat and nonadipose tissue. Angioliipoma, myoliipoma, and chondroid lipoma are rare lipomatous lesions that are infrequently imaged. Spindle cell and pleomorphic lipoma appear as a subcutaneous lipomatous mass in the posterior neck or shoulder, with frequent nonadipose components. Hibernoma appears as a lipomatous mass with serpentine vascular elements. Benign lipomatous lesions affecting bone, joint, or tendon sheath include intraosseous lipoma, parosteal lipoma, liposclerosing myxofibrous tumor, discrete lipoma of joint or tendon sheath, and lipoma arborescens. Intraosseous and parosteal lipoma have a pathognomonic CT or MR appearance, with fat in the marrow space or on the bone surface, respectively. Liposclerosing myxofibrous tumor is a rare intermixed histologic lesion commonly located in the medullary canal of the intertrochanteric femur. Benign lipomatous lesions may occur focally in a joint or tendon sheath or with diffuse villonodular proliferation in the synovium (lipoma arborescens) and are diagnosed based on location and identification of fat. Understanding the spectrum of appearances of the various benign musculoskeletal lipomatous lesions improves radiologic assessment and is vital for optimal patient management.

<http://radiographics.rsna.org/cgi/content/full/24/5/1411>