Liposarcoma

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Abstract

Liposarcoma is a malign bone tumor, with growth like a mass intraosseous destroying the cortical and giving rise to metastasis. Variant types have different behaviors. Wide resection treatment and chemotherapy can be necessary.

Keywords

Malign bone tumor • Liposarcoma

Liposarcoma is a rare malignant introsseous bone tumor, histologically similar to soft tissue liposarcomas. It is formed by cells forming fat cells with diferent grades of atypias. Variants of liposarcoma are well-differentiated, myxoid and pleomorphic. Well-differentiated and myxoid variants have a better prognosis [1–3] than pleomorphic types.

Inmunohistochemically, liposarcomas are MDM2/CDK4 positive.

They are usually located in the femur and tibia metaphysis or diaphysis.

Imaging shows a X-ray with ill-defined radioluscent lesion, and can have cortical destruction and invasion of soft tissue. The study with MRI shows a isosensitive or high T1and T2 signal and STIR positive (Short-T1Inversion Recovery, null the signal from fat).

The diagnosis needs a biosy to classify the variant type and differential diagnosis with other pleoformicsarcomas.

Macroscopic Pathology

Usually the tumors are large with a lobular appearance, soft, fleshy, sometimes rubbery. The cut surface can show bright yellow to white or gray.

Microscopic Pathology

Most cases of liposarcomas are of the pleomorphic type. Other variants seldom reported are myxoid liposarcoma and well-differentiated lipoma-like liposarcoma. Pleomorphic liposarcoma type [4] as its soft tissue counterpart is very cellular, composed of sheets of large pleomorphic cells, which have eosinophilic cytoplasm or a clear citoplasmic vacuole. Mitotic activity is typically very high. Lipoma-like liposarcoma consists of sheets of mature adipocytes with scattered lipoblasts, which show clear cytoplasmic vacuoles, and an scallop nucleus. Myxoid liposarcoma consists of stellate and spindle cells immersed in a myxoid matrix with subtle arborizing blood vessels; also scattered lipoblasts can be seen.

Special Techniques: the intracitoplasmic droplets of fat can be demonstrated with oil red O staining.

Microscopic Differential Diagnosis

The differential diagnosis includes other pleomorphic sarcomas: malignant fibrous histiocitoma, leiomyosarcoma, sarcomatoid carcinoma, among others. In order to make the right diagnosis lipoblasts should be found. Immunohistochemical markers might prove useful to rule out other pleomorphic sarcomas.

Treatment

Surgery with wide block must be done, if not amputation. Pleomorphic types need pre-op chemotherapy plus surgery [5].

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