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Clinical-Medical Image

Synovial Sarcoma: « Triple Sign » MRI Pattern

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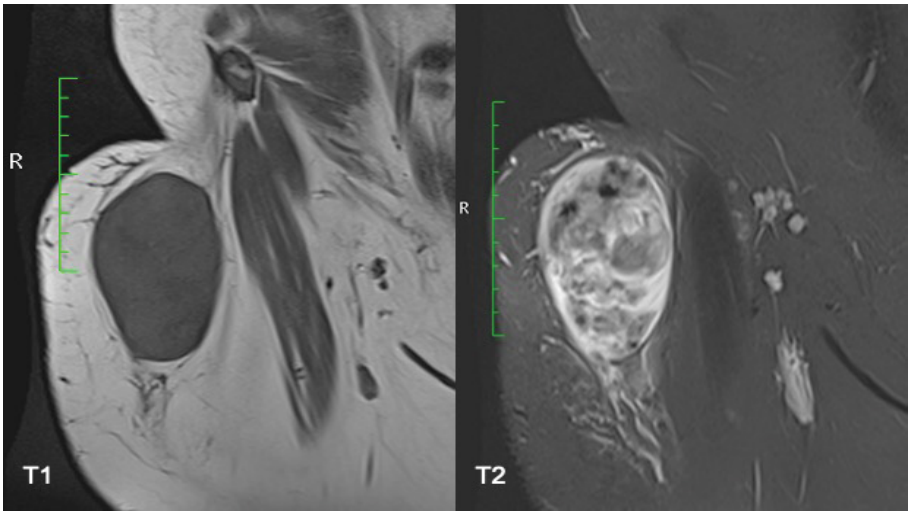

Figure 1: MRI of the right thigh of a 14-year-old, with coronal view in T1 weighted sequence and T2 with FS weighted sequence, showing a well-defined, extra-articular, mass of the thigh, hypointense in the T1 sequence, with a "triple sign" in the T2 image, leading to diagnosis of synovial sarcoma.

Clinical Image

The synovial sarcoma (Figure 1) is a soft tissue tumour, first described by Jaffe in 1941 as a tumour that grows from the synovium of joints, bursae or tendon sheaths. It was later reported that it grew from undifferentiated mesenchymal cells. It can be localized or diffuse, intra or extra articular, with predominance in lower extremities, with the thigh as the most common location, followed by the popliteal fossa. It is usually diagnosed in adolescents or young adults, and because of its slow growth, it may mimic a benign pathology. Clinical symptoms usually include a palpable mass. Imaging is the examination of choice to lead diagnosis. Plain radiographs are usually the first line examination, either showing no lesion or rarely calcifications. Ultrasonography shows a lobulated well-defined mass, that's hypoechoic, but, because of its non-specificity, MRI is required for better characterization of the lesion. It shows a large lobulated mass (usually >5cm), containing solid tumour, haemorrhage, necrosis and calcifications. Therefore, in T2 weighted sequences, it is heterogeneous, containing areas of intermediate signal, high signal and dark signal. The combination of these 3 shades of signal in the T2 weighted images is called the "triple sign", and leads to diagnosis. Histological confirmation is necessary. And treatment of choice is the surgical excision of the mass [1-3].

Keywords: Tumour; Soft; Tissue; Sarcoma; Imaging

Declaration of Interests

The authors declare that they have no competing interests.

References

[1] Al-Ibraheemi A, Ahrens WA, Fritchie K, Dong J, and Oliveira AM, et al. (2019) Malignant tenosynovial giant cell tumor: The true "synovial sarcoma?" A clinicopathologic, immunohistochemical, and molecular cytogenetic study of 10 cases, supporting origin from synoviocytes. Mod Pathol. 32: 242-251.

[2] Chambers LA, and Lesher JM (2018) Chronic thigh pain in a young adult diagnosed as synovial sarcoma: A case report. PM&R. 10: 969-973.

[3] Mirzaian E, Tavangar SM, Montazeri S, and Yeganeh, FE (2019) Biphasic epithelial predominant synovial sarcoma presenting as painful thigh mass. Iran J Pathol. 14: 261-265.

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