Pigmented Villonodular Synovitis of the Ankle

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Picture 1.

Picture 2.

Picture 3.

A 24-year-old woman presented with painful swelling of the left ankle lasting for several months. She denied any his-

tory of prior trauma or surgery. Her level of C-reactive protein was 2.4 mg/L (normal reference <6 mg/L). Plain radiographs showed an area of soft tissue density in the anteromedial aspect of the left ankle joint. Magnetic resonance imaging (MRI) revealed a 3.4×2.3×3.7-cm soft tissue lesion in the anterior aspect of the ankle with compression and displacement of the extensor digitorum longus and the extensor hallucis longus. The lesion exhibited dark T1 and T2 signals (Pictures 1, 2), intermediate to low signals on fat-saturated proton density-weighted images and heterogeneous enhancement following gadolinium administration. Under suspicion of a diagnosis of pigmented villonodular synovitis (PVNS) of the intertarsal joint, the patient underwent extensive excision of the tumor. Pathologic examinations confirmed the diagnosis of PVNS. The histopathology (Picture 3) demonstrated a diffuse-type giant cell tumor with a nodular appearance and an infiltrative border into the adipose tissue (red

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arrow), which confirmed the diagnosis of PVNS.

PVNS is a benign proliferative growth of the synovium (1). As in our case, MRI provides specific findings of PVNS, which exhibits predominant hypointensity on all pulse sequences (2). This is in contrast to rheumatoid arthritis and other types of inflamed synovium, which demonstrate high signal intensity on T2-weighted MRI images.

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