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"The challenges in diagnosing and managing primary bone angiosarcoma of the distal femur in a 38-year-old male"

Primary bone angiosarcoma (B-AS) is an extremely rare tumour that accounts for less than 1% of primary bone tumours. Diagnosis and management of B-AS is particularly challenging as there are a wide spectrum of clinical, histological, and radiological findings and a current lack of treatment consensus.

A 38-year-old male was referred to our centre after 10 weeks of progressively worsening left knee pain. Blood tests for malignancy and infection were negative. Imaging of his left knee was suspicious for an aggressive malignancy and the pre-biopsy clinical impression was either an atypical infectious process, lymphoma, or sarcoma, with an impending fracture. Various biopsies failed to demonstrate an aggressive or malignant process and this case was highlighted during a Multidisciplinary Cancer Conference (MCC) because of the discordance between the aggressive radiographic presentation and bland pathology seen on biopsy.

Cumulative suspicion for a potentially malignant process remained despite negative systemic staging, therefore a radical resection in the form of a transfemoral amputation was recommended by the MCC to achieve a cure. Chemotherapy was deferred to the adjuvant setting, pending complete pathological review. After consideration, the patient agreed with this treatment strategy and underwent a transfemoral amputation, with regional peripheral nerve interface. Despite the overall low-grade histological appearance from the previous biopsies, the other tumour foci from the resected limb had a different morphology and a diagnosis of B-AS was made 6 months after the onset of symptoms.