## FC-026

# Primary bone lymphoma

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**Aim:** Primary bone lymphoma (PBL) is a rare clinical entity. The aim of the present study is to evaluate the clinical and imaging characteristics of the disease.
**Material and Method:** We retrospectively followed 10 patients diagnosed with bone lymphoma without systemic involvement. The mean patients' age was 42 years old. The location of the disease was the in the femur in 7, the tibia in 1 and the humerus in 2 patients.
**Results:** All patients reported local, usually intermittent pain that was getting more intense and constant within several months. Mean duration of symptoms to diagnosis was 19 months (10-24). VAS pain score was 3.5 (2-10). Common initial clinical and imaging diagnosis was meniscal tear, bone edema and bone infection. On xray imaging mild periosteal reaction was evident in 2 patients, permeation in 4 and cortical osteolysis in 1 patient, whereas in 3 cases there were no xray findings. MRI revealed diffuse low in T1 and high in T2 images. The metaphyseal area was involved in all patients. Cortex infiltration and soft tissue extension was evident in 7 patients. Soft tissue core needle biopsy was performed in these 7 patients. Histolopathologic assessment revealed that in all of the cases the tumor was composed of small round cells, with increased nucleus/cytoplasm ratio. The neoplastic cells displayed strong immunopositivity for the leucocyte common antigen (LCA) and the B-lymphocyte markers CD79a and CD20, while they were negative for all the T-lymphocyte markers; thus the diagnosis of primary bone B-cell lymphoma was placed in all of the cases evaluated. Cultures were negative for infection, further supporting pathology.
**Conclusion:** Patients with PBL frequently demonstrate mild local symptoms for a long period, usually attributed to trauma or other benign conditions. X-ray findings are frequently minimal in sharp contrast to MRI that reveals a diffuse extension of the disease into the bone and in several cases a soft tissue mass even without obvious bone destruction. Pathologic analysis is cardinal for definite diagnosis.