# Primary Patellar T Cell Lymphoma: An Unusual Cause of Monoarthritis

VIKAS AGARWAL, MD, Senior Resident, Department of Immunology; LILY PAL, MD, Assistant Professor, Department of Pathology; AMITA AGGARWAL, DM, Assistant Professor; RAMNATH MISRA, MD, Professor, Department of Immunology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow 226014, India. Address reprint requests to Prof. Misra. E-mail: rnmisra@sgpgi.ac.in

A 72-year-old man presented with active right knee arthritis and 2 hard, 1–1.5 cm, tender subcutaneous nodules over the right prepatellar and infrapatellar regions. Synovial fluid was noninflammatory and lacked malignant cells. Patella had multiple lytic lesions and a moth-eaten appearance (Figure 1). The excised nodule showed diffuse infiltration of dermis and subcutis by monomorphic medium to large size lymphoid cells with scanty cytoplasm, vesicular nuclei, 1–2 prominent nucleoli, and mitotic figures (Figure 2); the cells stained strongly for CD3 and CD45, but not for CD19 or CD30 (Figure 3). Other bone, hematological and biochemical tests, bone marrow biopsy, and imaging for thorax and abdomen were unremarkable. Subcutaneous nodules and knee swelling subsided completely after CHOP chemotherapy for primary lymphoma of bone (PLB; right patella), stage IE.

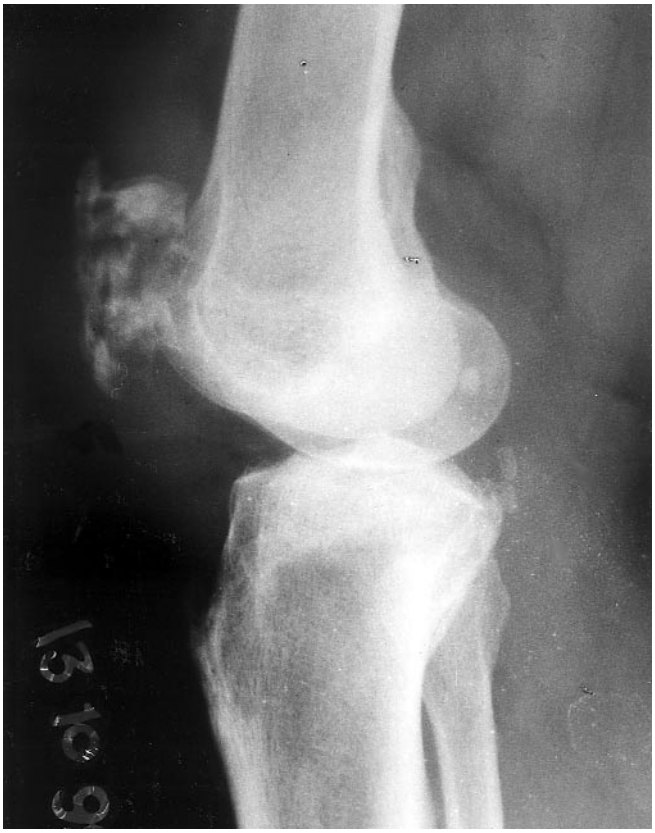

*Figure 1.* Radiograph of the right knee joint showing moth-eaten appearance of the patella.

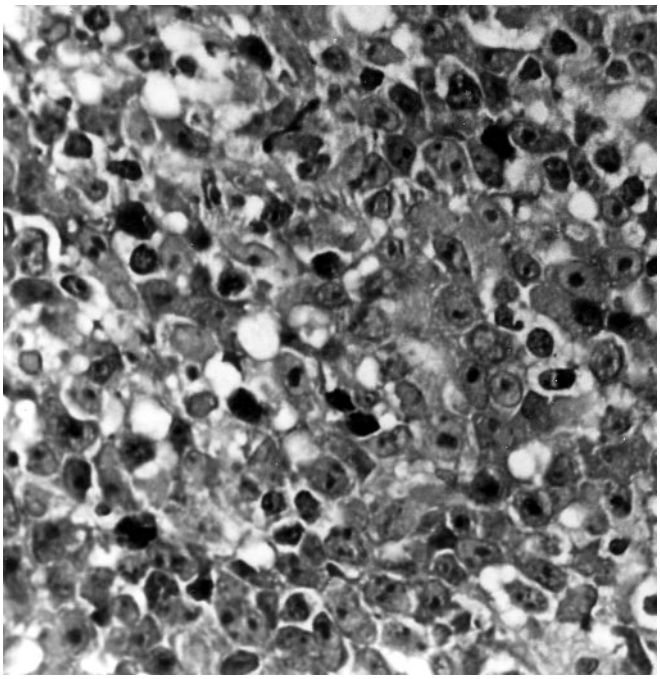

*Figure 2.* Histopathological section of the subcutaneous nodule showing noncleaved large cells with monomorphic appearance and a few prominent nucleoli suggestive of non-Hodgkin's lymphoma (H&E stain, ×200).

PLB constitutes about 5% of all extranodal non-Hodgkin's lymphomas and 7% of primary bone tumors[1]. It usually presents in the fifth decade of life, with localized bone pain, pathological fracture, and rarely a mass. Isolated patellar involvement is distinctly uncommon[2]. Radiographic changes include lytic (70%) or mixed density lesions (28%) with a moth-eaten pattern; periosteal reaction and soft tissue mass may be seen[3]. Articular involvement may occur due either to direct invasion or to synovial reaction; absence of inflammation and malignant cells in our patient's synovial fluid suggests the latter. Most PLB are of B cell origin[1]; T cell lymphoma involving the bone and presenting as arthritis has been described in 3 children with disseminated disease[4].

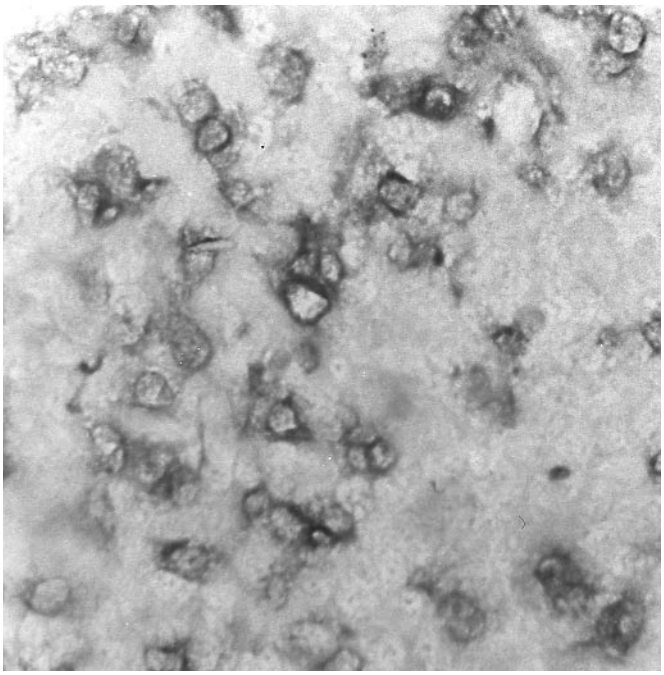

*Figure 3.* Immunohistochemical staining of subcutaneous nodule tissue showing strong perinuclear reactivity with anti-CD3 antibody, confirming the T cell origin of the lymphoma (×200).

## REFERENCES


1. Baar J, Burkes RL, Gospodarowicz M. Primary non-Hodgkin's lymphoma of bone. Semin Oncol 1999;26:270-5.
2. Chandra A, Eilender D. Uncommon sites of presentation of hematologic malignancies. Case 1: localized primary non-Hodgkin's lymphoma of the patella. J Clin Oncol 1999;17:1640-2.
3. Mulligan ME, McRae GA, Murphey MD. Imaging features of primary lymphoma of bone. AJR Am J Roentgenol 1999; 173:1691-7.
4. Falcini F, Bardare M, Cimaz R, Lippi A, Corona F. Arthritis as a presenting feature of non-Hodgkin's lymphoma. Arch Dis Child 1998;78:367-70.