CASE REPOSITORY

A Rare Manifestation of Primary Bone Lymphoma: Solitary Diffuse Large B-Cell Lymphoma of the Little Finger

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Solitary primary non-Hodgkin bone lymphoma of the hand is a rare entity with only 3 cases reported in the literature. We report the case of a 77-year-old patient with isolated large B-cell bone lymphoma of the proximal phalanx of the little finger without rheumatoid arthritis or methotrexate treatment. The patient was treated with digital amputation and at 6 months' follow-up showed no relapse or dissemination of the disease. *(J Hand Surg Am. 2017;■(■):1.e1-e4. Copyright © 2017 by the American Society for Surgery of the Hand. All rights reserved.)*

Key words Bone lymphoma, finger.

Online Exclusive

PRIMARY EXTRANODAL LYMPHOMAS constitute 25% to 30% of non-Hodgkin lymphomas with the most common locations being the gastrointestinal tract, the central nervous system, the skin, the testes, and the bones.[1,2] Primary bone lymphoma accounts for 3% of malignant bone tumors and for only 1% of all types of non-Hodgkin lymphomas.[3] It appears more frequently in adult life in long bones with persistent bone marrow.[1] The most common histological type of non-Hodgkin lymphoma is the B-cell lymphoma accounting for 80% to 90% of all cases with 30% being diffuse large B-cell lymphomas.[2] We present a rare case of primary diffuse large B-cell lymphoma of bone with isolated involvement of the proximal phalanx of the little finger.

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CASE REPORT

A 77-year-old man noticed painless crepitation and instability in the right little finger and visited his family doctor with these complaints. X-ray examination revealed osteolysis and a pathological fracture of the proximal phalanx (Fig. 1). The patient was admitted to our department for further diagnostic evaluation.

The clinical examination showed mild swelling of the little finger as well as distinct ulnar instability of the fifth metacarpophalangeal joint. There were no signs of lymphadenopathy and no palpable lymph nodes and auscultation of the lungs did not reveal pathological respiratory sounds.

There was no personal or family history of lymphoma or autoimmune diseases and the only medical problem reported by the patient was arterial hypertension.

Magnetic resonance imaging (MRI) of the hand revealed an infiltrating intraosseous mass with cortical destruction at the site of the fracture (Fig. 2).

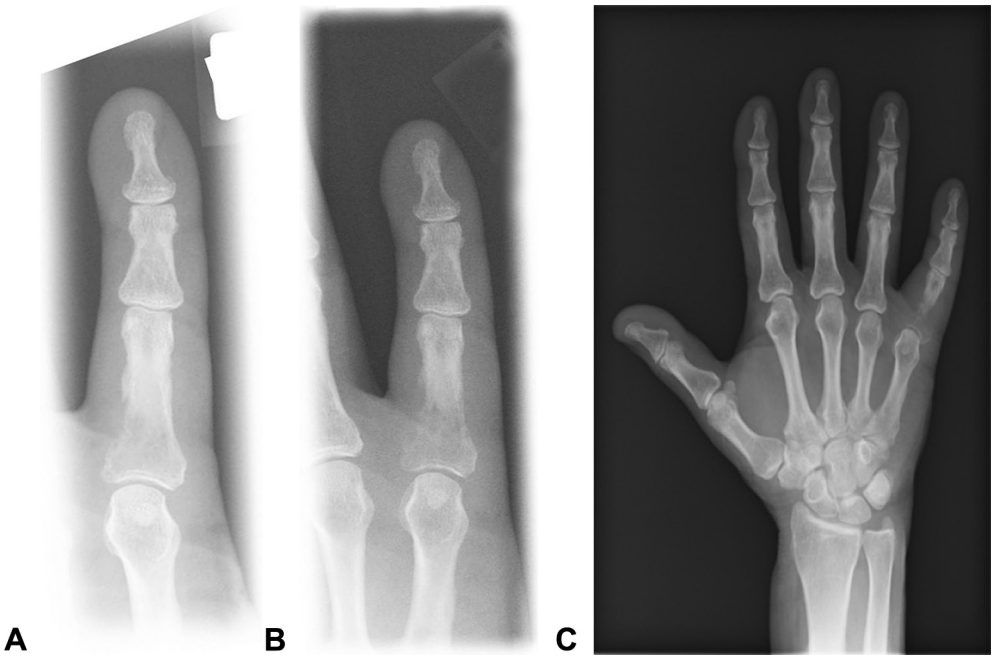

FIGURE 1: **A** Radiography demonstrates an osteolysis and a pathological fracture of the right little finger. **B** Radiography demonstrates an osteolysis and a pathological fracture of the right little finger. **C** Radiography demonstrates an osteolysis and a pathological fracture of the right little finger.

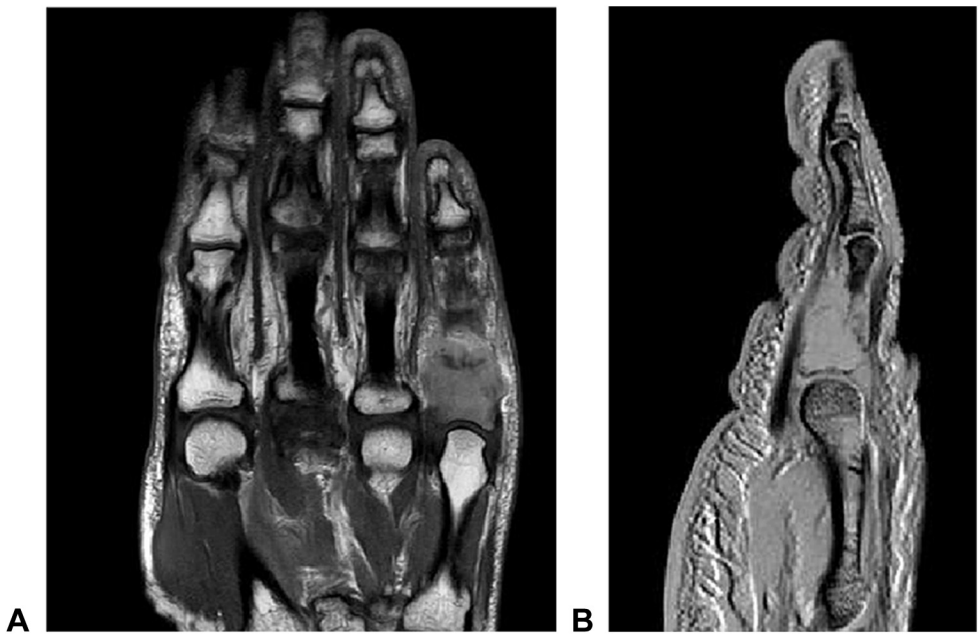

FIGURE 2: **A** Magnetic resonance imaging reveals the existence of an intraosseous infiltrating mass. **B** Magnetic resonance imaging reveals the existence of an intraosseous infiltrating mass.

A bone biopsy was performed that demonstrated a nonepithelial tumor displaying high reactivity to CD-20, high proliferation rate, and expression of CD-10 and MUM1, consistent with a diagnosis of diffuse large B-cell lymphoma. *In situ* hybridization for Epstein-Barr as well as fluorescence *in situ* hybridization for BCL2, BCL6, and MYC were negative (Fig. 3).

Staging, which included computed tomography (CT) abdomen, CT thorax, positron emission tomography-CT and bone marrow puncture, did not show systemic dissemination or nodal involvement.

The laboratory values, including complete blood count, B_2-microglobilin and lactate dehydrogenase, were within normal limits.