



Primary Non-Hodgkin's Lymphoma Mimicking Lateral Epicondylitis

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Abstract

Primary bone lymphoma constitutes 3-7% of all malign bone tumors and extra-nodal lymphomas. Joint infiltration is very rare clinical entity and mono arthritis may be a secondary synovial reaction to adjacent bone disease or direct synovial involvement. Radiological features of primary lymphoma of bone may present with different findings. Lateral epicondylitis is one of the most causes of elbow pain. It is usually observed between 30 and 50 years of age. The main symptom is the pain at the lateral epicondyle of the elbow. We report a case of primary Non-Hodgkin's Lymphoma mimicking lateral epicondylitis a 61 years female patient. It emphasizes the need for a high clinical suspicion in susceptible cases, particularly in permanent bone and joint pain.

Key Words: Lateral epicondylitis, lymphoma, permanent pain.

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Introduction

Skeletal involvement is described in 25% of patients with non-Hodgkin's lymphoma being typically as secondary, rarely as primary lymphoma of bone [1]. Joint infiltration is very rare clinical entity and monoarthritis may be a secondary synovial reaction to adjacent bone disease or direct synovial involvement.

In a study, radiological features of primary lymphoma of bone lytic type in 70% of all cases, mix type in 28% of all cases, periosteal reaction in 58% of the long bones, soft tissue mass in 48% and 22% of pathological fracture was found [2].

Lateral epicondylitis is one of the most common reason of elbow pain. The main symptom is pain in the area of lateral epicondyle of the elbow. Diagnosis is usually made by history and physical examination. Imaging methods are not helpful in the diagnosis.

The Case

A 61-year-old female patient was admitted to the hospital with the complaint of pain on right elbow continuing for about 1 year and swelling for about 2 months. The patient did not have fever, night sweating or weight loss. Additionally, she also did not describe any trauma history. Before this presentation, various non-steroidal anti-inflammatory drugs and local steroid injections had been applied to the patient with a diagnosis of lateral epicondylitis but her complaints has not improved.

Physical examination showed diffuse swelling in the area of 4 cm proximal to the lateral epicondyle in the right elbow. Tenderness during palpation on elbow joint was present. Elbow range of motion were intact. Neuromuscular examination was unremarkable and laboratory tests were in normal range.

The patient first underwent radiographic and ultrasonographic evaluation. On X-ray examination, bone opacity was increased and there were lytic lesions of bone in the distal humerus (Figure 1a). Superficial USG examination showed a significant edema in the subcutaneous soft tissues of right elbow and there was not any finding regarding a possible synovial proliferation. Subsequently, MRI with contrast medium was scheduled for differential diagnosis. On axial MRI, there was an 84x26 mm lesion with necrotic areas in the

1/3 distal part of the humerus with invasion into muscular structures and also destructing the cortex at the level of posterior olecranon and involving bone marrow (Figures 1b and 1c).



Figure 1. Figure 1a shows X-ray and figures 1b and 1c show MRI findings. Arrows show soft tissue involvement and asterisks show lytic lesions.

A biopsy was arranged for a definite diagnosis. Histological evaluation subsequently showed a diffuse large B-cell lymphoma.

Discussion

Primary bone lymphoma (PBL) constitutes 3-7% of all malign bone tumors and extra-nodal lymphomas. Most of these tumors are non-Hodgkin lymphoma and 92% of these are diffuse

large B-cell lymphoma [3]. Although it may be observed in all age groups, the disease is encountered mostly in the third and sixth decades of life [1,3,4]. The patient in our case was a female and her age was consistent with the previous data.

The femur head is the most affected site in 30% of cases in the lower extremities [3]. Radial and ulnar involvements have been rarely reported with a higher humerus involvement [5]. The site of involvement in our case was distal humerus.

Although MRI findings in our case have similar features with previous reports, there were some different MRI findings in our case. Indeed, in a previous study evaluating MRI features of PBL, it was stated that MRI features of these patients may be variable and thickened cortical bone structure may be observed without any linear cortical signal abnormalities and soft tissue mass [6]. Our case underlies the fact that PBL may present with different findings on MRI.

Lateral epicondylitis is one of the most causes of elbow pain. It is usually observed between 30 and 50 years of age. The main symptom is the pain at the lateral epicondyle of the elbow. The pain may be acute, intermittent or chronic. Supination of the wrist and handgrip may result in an increase in pain. Patient history and physical examination often lead to diagnosis. Imaging modalities are not usually useful in diagnosis [7].

Neri et al reported a case report which was ultimately diagnosed with B-cell non-Hodgkin's lymphoma in which a patient who had been presented with swelling and pain with a duration of three months that responded weakly to nonsteroidal anti-inflammatory drugs and who had been followed with a diagnosis of monoarthritis [8]. Our case was the first case report that was diagnosed with B-cell non-Hodgkin's lymphoma who had been followed with a duration of one year with a diagnosis of lateral epicondylitis.

In conclusion, as in our case, differential diagnosis should be meticulously performed in cases with a long duration of pain. Imaging workups should be considered in patients with joint or extremity pain and swelling that are long-standing and unresponsive to medical therapy. Primary and metastatic tumors should be taken into account in differential diagnosis.

References

1. Baar J, Burkes RL, Gospodarowicz M. Primary non-Hodgkin's lymphoma of the bone. *Semin Oncol.* 1999;26(3):270-5.
2. Mulligan ME, McRae GA, Murphey MD. Imaging features of primary lymphoma of bone. *AJR Am J Roentgenol.* 1999;173(6):1691-7.
3. Potter BK, Adams SC, Kransdorf MJ, Temple HT. A 38-year-old man with left knee pain. *Clin Orthop Relat Res.* 2009;467(10):2755-9.
4. Ludwig K. Musculoskeletal lymphomas. *Radiologe.* 2002;42(12):988-92.
5. Pinheiro RF, Filho FD, Lima GG, Ferreira FV. Primary non-Hodgkin lymphoma of bone: an unusual presentation. *J Cancer Res Ther.* 2009;5(1):52-3.
6. Heyning FH, Kroon HM, Hogendoorn PC, Taminiau AH, van der Woude HJ. MR imaging characteristics in primary lymphoma of bone with emphasis on non-aggressive appearance. *Skeletal Radiol* 2007;36(10):937-44.
7. Tüzün F, Eryavuz M, Akarırmak Ü. Dirsek Ağrıları. Hareket Sistemi Hastalıkları. Nobel Tıp Kitabevleri Ltd. Şti. 1997. 211-8.
8. Neri R, Giorgetti M, Zampa V, Iacopetti V, Vannucci P, Tognetti A, Bombardieri S. Elbow monoarthritis revealing B cell non-Hodgkin's lymphoma. Case report. *Clin Rheumatol.* 2013;32(Suppl 1):S111-4.