NON-HODGKIN’S LYMPHOMA OF THE KNEE PRESENTING AS MONOARTHRITIS: INHABITUAL MRI ASPECT

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INTRODUCTION

- Joint is uncommonly involved by non-Hodgkin’s lymphoma (NHL).
- The MRI findings are report only in few cases in the literature.
- Our purpose is to report an unusual case of non-Hodgkin’s lymphoma of the knee and her MRI aspect.
A 37 year old man presented with progressive swollen and painful right knee joint and femoral region, over a period of a six months.

The patient had a history of tuberculosis ten years ago.

Physical examination showed a swollen right knee joint and femoral region, which were tender, painful and with restricted motion.

The rest of the examination was unremarkable.

Plain radiographs were unremarkable.

Articular punction was aseptic.
CASE REPORT

- MRI of the knee showed
  - Joint effusion,
  - Synovial enhancement,
  - Perisynovial and soft tissue mass
  - Abnormalities of bone signal of the femur with an irregular fluid chambers with peripheral enhancement
  - This abnormalities are evocated septic arthritis associated with osteomyelitis.
MRI of right knee joint: sagittal (a) and coronal (b) DP with fat saturation; coronal (c) and axial (d) T1 after IV administration of gadolinium and fat saturation: joint effusion, synovial enhancement, perisynovial and soft tissue masse associated with abnormalities of bone signal of the femur with an irregular lytic lesions with fluid chambers whose are evocated septic arthritis associated with osteomyelitis.
The biopsy of the bone and the synovial membrane showed large B cell non Hodgkin’s lymphoma.

Thoraco-abdominal CT showed hepatic lesion in the VII segment.

The patient was treated with chemotherapy.
DISCUSSION
Non-Hodgkin’s lymphoma can present as either a nodal form with lymphadenopathy or, less commonly, as an extranodal form outside the lymphatic system.

Musculoskeletal involvement of non-Hodgkin’s lymphoma occurs in 25% of patients, typically as metastasis, rarely, as primary lymphoma of bone or soft tissue.

Non-Hodgkin’s lymphoma involving the synovium is rare, with only thirteen reported cases.
Slightly more men than women (1.18:1) are affected by articular lymphomas.

The age of the patients ranged from thirteen to seventy-six years.

The most frequent localizations of NHLs are the knee.
Synovial involvement is characterized by nodular deposits of lymphoid infiltrate.

Histology generally described diffuse large centroblastic lymphoid cells all with B phenotype.
Patients always present with monoarthritic, which may simulate rheumatoid arthritis.

In many cases, the diagnosis is delayed because of nonspecific clinical signs. Chronic dull pain may be the only complaint.
Radiographs can showed no abnormality

A spectrum of radiographic changes can be observed:

- subchondral sclerosis,
- regional osteopenia,
- effusion,
- bone lytic lesions.
The MRI findings of joint lymphoma are reported only in few cases in the literature:

- Synovial proliferation have an intermediate signal intensity on T2 and DP with enhancement following the administration of gadolinium
- Joint effusion
- Bone-marrow abnormality: low T1 signal and high T2 signal with patchy enhancement.
- Minimal cortical bone abnormality despite an accompanying soft tissue mass is a characteristic of lymphoma of bone.
- MRI can demonstrate a soft tissue mass
Biopsy is still required to establish the diagnosis and MRI may identify the optimum biopsy site.
The differential diagnosis of a monoarthritis without bony involvement included rheumatoid arthritis and synovial tumors. The MRI excludes many of alternative diagnosis, the synovial signal is different of the fluid and contain no haemosiderin, fat or calcification.

In our case, the patient have a synovial and bone abnormality whose evocated an infectious affection. One case of lymphoma presenting as a solitary bone tumor mimicking osteomyelitis in MRI is reported in the literature.
Conclusion

- Joint lymphoma is rare
- When this is the first location of NHL, it is usually misdiagnosed.
- The MRI findings are reported only in a few cases in the literature.
- Biopsies still required to establish the diagnosis


