DOI: 10.4274/tod.43660
Turk J Osteoporos 2017;23:45-6

Idiopathic Widespread Femoral Osteonecrosis: An Insidious Cause for Knee Pain

İdiyopatik Yaygın Femoral Osteonekroz: Diz Ağrısının Sık Görülmeyen Bir Nedeni

Selçuk Sayılır

Muğla Sıtkı Koçman University Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Muğla, Turkey

To the Editor;

A 32-year-old man was admitted to our clinic with pain in both knees and hips for ten years. He did not report any trauma and his pain was increasing by walking and decreasing by non-steroidal anti-inflammatory drugs (NSAIDs). He used NSAID drugs for his symptoms, according to health professions suggestions for ten years. Any radiological examinations exist after symptom onset and the history of the constitutional symptoms or use of drugs, alcohol or cigarettes did not exist. On the other hand, he did not have a history of endocrinological or rheumatological diseases in his family. On the physical examination; both knees and hips were limited by pain, there was a tenderness located over the medial femoral condyle. McMurray's test was negative, joint instability was not present. Moreover, there were not abnormal clinical and laboratory findings except above findings. A magnetic resonance imaging (MRI) was planned for both thighs due to his persistent symptoms. MRI showed a heterogeneous lesion surrounded by a thin, winding low-signal-intensity rim in the medullary cavity of the distal femur and femoral head osteonecrosis bilaterally (Figure 1). We diagnosed this case as a bone infarction. Consent was obtained from the patient.

Although, knee pain is one of the most seen problems in pain clinics, widespread osteonecrosis of the femoral bones is a rare cause of knee pain. Femoral osteonecrosis, usually occurs in femoral heads and appears in the third through fifth decades of life (1). Although the pathophysiology of avascular necrosis still remains unclear, this progressive clinical condition is characterized by reduced local blood flow and bone death (2). The patients with femoral osteonecrosis are usually treated with conservative treatments such as physical medicine, analgesic drugs, restriction on weight bearing. More recently some authors reported adipose tissue-derived stem cells and platelet-rich plasma leads to the regeneration of medullary bone-like tissue and long-term reduction of hip pain in patients with femoral head osteonecrosis (3).

The present study reported, a 32-year-old, male patient, who was relatively active and without remarkable medical history, diagnosed with widespread osteonecrosis of femoral bones. Although, no risk factors for osteonecrosis existed, both femoral heads and condyles were affected bilaterally. It should be kept in mind that idiopatical osteonecrosis of the distal femoral bones and femoral heads should be considered in the differential diagnosis of knee and hip pain in young individuals. If osteonecrosis of femoral head and the condyles exist and can be demonstrated by imaging techniques, it would be very

Figure 1. Magnetic resonance imaging investigations, a) magnetic resonance images of the patient shows osteonecrosis (medullary bone infarction) of femoral condyles, b) magnetic resonance images of the patient shows femoral head osteonecrosis bilaterally (1.5 Tesla magnetic resonance imaging, standard T1A spin-echo sequences, repetition time 300 ms, field of view 300 mm, echo time, 25 ms, slice thickness 4 mm, number of signal averages, 4)

Address for Correspondence/ Yazışma Adresi: Selçuk Sayılır MD, Muğla Sıtkı Koçman University Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Muğla, Turkey
Phone: +90 252 214 13 26 **E-mail:** selcukssay@gmail.com **Received/Geliş Tarihi:** 15.07.2016 **Accepted/Kabul Tarihi:** 26.07.2016

helpful for early diagnosis and the success of the treatment and outcome.

Keywords: Widespread femoral osteonecrosis, knee pain, magnetic resonance investigations

Anahtar kelimeler: Yaygın femoral osteonekroz, diz ağrısı, manyetik rezonans incelemeleri

Ethics

Peer-review: Internally peer-reviewed.

References

1. Mont MA, Jones LC, Hungerford DS. Nontraumatic osteonecrosis of the femoral head: ten years later. J Bone Joint Surg Am 2006;88:1117-32.
2. Seamon J, Keller T, Saleh J, Cui Q. The pathogenesis of nontraumatic osteonecrosis. Arthritis 2012;2012:601763.
3. Pak J. Autologous adipose tissue-derived stem cells induce persistent bone-like tissue in osteonecrotic femoral heads. Pain Physician 2012;15:75-85.