

Severe gonarthrosis without pain and disability: A case report

Ağrısız ve kısıtlılık oluşturmeyan ileri evre gonartroz: Olgu sunumu

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SUMMARY

Diz Osteoartriti (gonartroz), diz bölgesindeki kronik ağrının en yaygın nedenlerinden biridir. Gonartrozda tip II kollajenin bozulması, kıkırdak yıkımı, sinovit ve kemik iliği lezyonları tipik olarak belirgin ağrıya sebep olur. Diz eklemindeki bu değişiklikler, zaman içinde eklem hareket açıklığında önemli kısıtlılıklara ve yürüme bozukluklarına yol açmaktadır. Bu semptomların zamanla ilerlemesi ile hastanın yaşam kalitesi giderek düşmekte ve ileri gonartroz vakalarında hastalar bakıma muhtaç hale gelebilmektedir. Bu yazıda diz bölgesinde ağrısız ve hareket kısıtlılığı olmayan ileri evre gonartroz olgusu sunulmaktadır.

Keywords: Ağrı, diz eklemi, hareket kısıtlılığı, osteoartrit

ÖZET

Knee Osteoarthritis (gonarthrosis) is one of the most common causes of chronic pain in the knee area. In gonarthrosis, disruption of type II collagen, cartilage destruction, synovitis, and bone marrow lesions typically cause significant pain. These changes in the knee joint lead to significant limitation of range of motion and gait disturbances over time. With the progression of these symptoms over time, the quality of life of the patient gradually decreases and patients may become in need of care in advanced cases of gonarthrosis. In this report, a case of advanced gonarthrosis without pain and limitation of movement in the knee region is presented.

Anahtar kelimeler: Knee joint, osteoarthritis, pain, stiffness

INTRODUCTION

Knee osteoarthritis, in other words, gonarthrosis, is a frequent chronic crippling knee joint disease, especially in the elderly, which causes considerable pain, stiffness, and lower extremities disability that significantly affect the patients' self-independence and quality of life(1,2). Pain is the cardinal symptom of osteoarthritis (OA) and impacts physical function, quality of life, mental health, and health service use (3,4). The main intervention goals are pain reduction and improvement of physical function (5). However, does gonarthrosis always cause pain? We report a case of severe gonarthrosis without pain and disability.

CASE REPORT

A 57-year-old woman presented to our clinic with left ankle pain after ankle sprain, which occurred 3 weeks ago. There were no other complaints. The patient's weight was 104 kg, and her height was 171 cm. BMI was 35,6 (Class II obesity) (6). She did not have any other systemic diseases. Her past medical and family history was unremarkable. She was not taking any medications at the time of admission.

Physical examination revealed that her left knee has 100 extension deficiency. Bilateral knee flexion range was 0-110°, right knee extension was 0°, and left knee extension was -10°. The bilateral knee range of motion (ROM) and patellar tilt test was painless. Crepitus was observed at both knees. We evaluated bilateral knee pain and function with IKDC Score, Knee Injury and Osteoarthritis Score (KOOS), WOMAC Score, Knee Society Score (KSS), Visual Analog Score (VAS) (Table 1) (7–11). Despite a slight decrease in knee function scores, the patient did not have knee pain or disability due to radiologically detected knee osteoarthritis. Additionally, other conditions which could mask the pain sensation such as, polyneuropathy or spinal cord pathologies, were not detected. Bilateral bearing knee X-ray was performed and revealed severe chondral degeneration, knee joint space narrowing, osteophyte formation, and subchondral sclerosis.

Table 1. Functional knee scores and pain score

Functional Knee Scores	Score
IKDC Score*	76,1
Knee Injury and Osteoarthritis Score	80,4
WOMAC Score [†]	79,5
Knee Society Score	77
Visual Analog Score	0

The patient was informed that she had radiologically advanced osteoarthritis in the knee joint. Since the patient had no complaints, no medication was prescribed; however, lifestyle changes and knee ROM exercises were recommended because of radiological detection of knee osteoarthritis in the knee joint.

DISCUSSION

OA is the most common joint disease worldwide that appears to originate in the cartilage and affects the underlying bone, soft tissues, and synovial fluid and is mostly affecting the hand and large weight-bearing joints such as the knee (12,13). As a polymorphic disease with a variety of clinical presentations, OA is challenging to define rigorously. A commonly encountered definition of OA describes "...a heterogeneous group of conditions that leads to joint symptoms and signs which are associated with defective integrity of articular cartilage, in addition to related changes in the underlying bone and at the joint margins" (14). Patients suffering from OA often complain of pain on movement, typically occurring when movement is initiated or when the patient begins to walk. The pain is often described as a dull ache. As OA progresses, the pain becomes continuous, and the functionality of the joint is severely impaired. The main goal of diagnostic evaluation is to demonstrate the presence of OA unequivocally or else to rule it out. A precise diagnosis enables precise treatment. The major elements of the diagnostic evaluation are the history, physical examination, imaging studies, and, in some cases where special questions arise, laboratory testing. X-ray findings are usually sufficient for diagnosis and determining severity. The Kellgren and Lawrence system is a widely used method for classifying the severity of knee OA with X-ray findings (15) (Table 2).

Table 2. The Kellgren and Lawrence osteoarthritis grading system

Grade	Explanation
1	joint space narrowing (less than 3 mm)
2	joint space obliteration
3	minor bone attrition (0-5 mm)
4	moderate bone attrition (5-10 mm)
5	severe bone attrition (more than 10 mm)

According to the Knee OA Criteria of the American College of Rheumatology (9), a person without knee pain cannot be diagnosed with knee osteoarthritis; however, although there was no pain in the presented case, it is considered as grade 4 bilateral gonarthrosis (Kellgren and Lawrence) according to direct radiography findings. (Figure 1).

In many studies in the literature, pain is stated as an invariable component of knee osteoarthritis (16,17). However, some studies reveal a discordance between pain and knee osteoarthritis in a study combining two cohorts. Neogi et al. (18) showed that pain was more correlated with joint space narrowing than with the presence of osteophytes. Another study showed that bone marrow edema and synovitis are structural changes that are closely related to pain. In contrast, osteophytes, bone cysts, and ligament structure changes are not closely associated with OA pain (19).

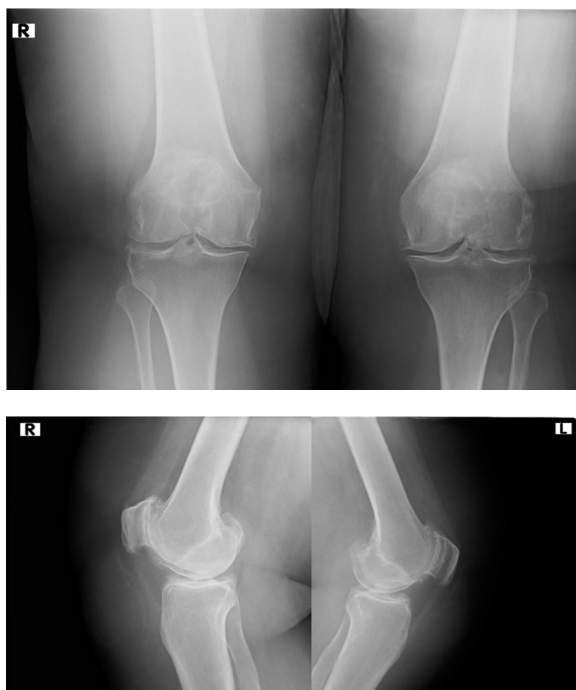


Figure 1. Bearing bilateral knee x-ray

CONCLUSIONS

This case report revealed that severe osteoarthritic findings on X-ray may not always cause the main symptoms of gonarthrosis. Therefore, perhaps we should question the necessity of knee pain for the diagnosis of gonarthrosis. Clinical presentation, physical examination, and imaging need to be evaluated together before diagnosing gonarthrosis and planning a treatment regimen. There is a need for meta-analyses with larger case series on this subject.

Consent

Written informed consent was obtained from the patient for publication of this case report and any accompanying images.

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