



Case Report: Rare Presentation of Rapid Progressive Osteoarthritis of the Hip

Olgu Sunumu: Hızlı Progresif Kalça Osteoartritinin Nadir Sunumu

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ABSTRACT

Rapidly progressive osteoarthritis (OA) of the hip is a rare and incompletely understood disorder with scarce literature about variations in natural history within a population. The patient presented with rapidly progressive hip pain and stiffness with limited range of motion. Imaging studies revealed severe OA of the hip joint with significant joint space narrowing and osteophyte formation. Conservative management with pain medications and physical therapy was attempted, but failed to provide significant relief. The patient ultimately underwent total hip arthroplasty, with successful resolution of symptoms and return to normal activities.

Keywords: Osteoarthritis, hip, arthroplasty, rapidly progressive osteoarthritis

ÖZ

Kalçanın hızla ilerleyen osteoartriti (OA) nadir görülen ve tam olarak anlaşılmayan patolojidir ve bir popülasyonda doğal seyrindeki farklılıkları hakkında güncel literatürde az veri mevcuttur. Sunduğumuz hasta hızla ilerleyen kalça ağrısı ve hareket açıklığının kısıtlılığı ile tarafımıza başvurdu. Görüntüleme çalışmaları hastanın kalça ekleminde ciddi eklem aralığının daralması ve osteofit oluşumu ile birlikte ciddi dercede OA olduğunu ortaya çıkardı. Ağrı kesici ilaçlar ve fizik tedavi ile konservatif tedavi denendi, ancak kaydadeğer bir iyileşme sağlanamadı. Sonuç olarak, hastaya total kalça artroplastisi uygulandı ve semptomlarda belirgin gerileme ve hastanın normal günlük aktivitelerine geri dönüş sağlandı

Anahtar Sözcükler: Osteoartrit, kalça, artroplastisi, hızlı ilerleyen osteoartrit

INTRODUCTION

Hip osteoarthritis (OA) is a disease process that affects the aging population. OA of the hip is the result of degeneration of the articular cartilage, underlying bone, and soft tissue structures (1). The pathology of the rapid progression is subdivided into primary and secondary. Several hypotheses of pathogenesis are discussed. These are related to mechanical overloading factors, local cortisone therapy, anoxia, and synovitis. The differential diagnosis includes subacute septic arthritis, monoarticular rheumatoid arthritis, and idiopathic osteonecrosis of the femoral head (2).

Rapidly progressive OA of the hip (RPOH) is an uncommon and poorly understood condition. No universal definition of RPOH exists; however, a loss of joint space at the pace of 2 mm per year or 50% in one year with no other cause can be classified as RPOH (3).

The incidence of symptomatic hip disease has been estimated to be 88 per 100,000 people, with an approximate prevalence of 10% in the United States (4).

Rapidly progressive OA of the hip is a type of OA that progresses quickly and aggressively, leading to severe joint damage and dysfunction. It is characterized by rapid joint space narrowing, osteophyte formation, and significant pain and stiffness. It can be caused by various factors, such as genetic predisposition, trauma, or metabolic disorders.

CASE REPORT

A 78-year-old female patient presented with a hip pain lasting for one year and worsening in the last four months. The patient was using oral antidiabetics for type 2 diabetes mellitus. At initial presentation, no pathology was detected in the anteroposterior

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X-ray of the pelvis taken 1 year ago (Figure 1). Degenerative changes were observed with the protrusion of the femoral head into the pelvis in the current pelvic anterior-posterior radiograph (Figure 2). Pelvic tomography revealed expansion of the medial wall of the acetabulum into the pelvis and degenerative changes in the hip joint (Figure 3). No pathological changes were detected in the



Figure 1. Anteroposterior X-ray of the pelvis of the patient one year prior to presentation.

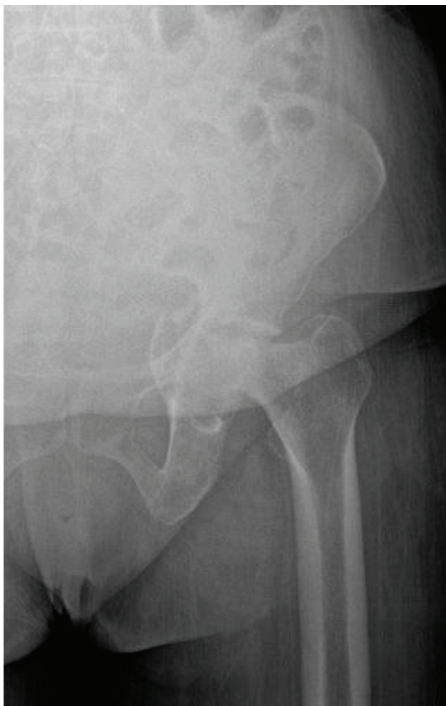


Figure 2. Anteroposterior X-ray of the pelvis demonstrating degenerative changes with protrusion of the femoral head into the pelvis.

electromyographic (EMG) examination of the lower extremity. The patient was referred to rheumatology for evaluation of rheumatic diseases, but no diseases were found. Open biopsy was performed to rule out pathologies such as infection and tumors. There was no growth in the bacterial and fungal cultures. The biopsy result was consistent with chronic degenerative changes in the hip joint. Total hip arthroplasty operation was planned for this patient. The patient was followed up for six months without any postoperative issues (Figure 4). Written informed consent was obtained from the patient prior to submission of the case report.

It was observed that the symptoms of the patient regressed two months after the operation. The patient's rehabilitation process continues.

DISCUSSION

One of the main factors that contribute to the development of rapidly progressive hip OA is genetic predisposition. Metabolic



Figure 3. Pelvic computed tomography showing expansion of the medial wall of the acetabulum into the pelvis and degenerative changes in the hip joint.



Figure 4. Anteroposterior X-ray of the pelvis of the patient 6 months after total hip arthroplasty operation.

disorders such as diabetes and obesity, trauma, and repetitive stress have been linked to the development of OA, including rapidly progressive hip OA (5).

Rheumatoid arthritis and should be considered in the differential diagnosis (6). Rapidly destructive arthropathy of the hip joint rarely occurs in patients with OA, avascular necrosis of the femoral head, or rheumatoid arthritis. A differential diagnosis is needed to exclude septic arthritis and neuropathic arthritis (7). No rheumatoid disease was detected in our patient's rheumatological examination and biopsy. Another disease that should be considered in the differential diagnosis is Charcot arthropathy (8,9). Having diabetes suggests Charcot arthropathy. However, the fact that the patient had pain and no pathology was detected in the EMG helped us to rule out this disease (8).

Conservative management of rapidly progressive hip OA typically involves pain management with medications and physical therapy. However, these treatments may not be effective in providing significant relief, particularly in severe cases, as in our case. Total hip arthroplasty is necessary to restore joint function and alleviate pain (3).

CONCLUSION

In conclusion, rapidly progressive hip OA is a difficult condition to manage and requires early diagnosis. Genetic predisposition, metabolic disorders, and trauma may contribute to the development of this condition. To make a differential diagnosis of the disease, culture and histopathological examination, EMG, and advanced imaging methods for the hip joint should be performed. Total hip replacement is inevitable in the effective treatment of the disease, and surgical application may be technically problematic in advanced disease.

Ethics

Informed consent: Informed consent was waived from the patient for inclusion in the study.

Peer-Review: Externally peer-reviewed.

Authorship Contributions

Concept: T.T., O.B., H.A., A.B., A.A., Design: T.T., O.B., H.A., A.B., A.A., Data Collection or Processing: T.T., O.B., H.A., A.B., A.A., Analysis or Interpretation: T.T., O.B., H.A., A.B., A.A., Literature Search: T.T., O.B., H.A., A.B., A.A., Writing: T.T., O.B., H.A., A.B., A.A.

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