

SEMPTOMATİK HALKA ŞEKİLLİ LATERAL MENİSKUS: VAKA SUNUMU

A Symptomatic Ring-Shaped Lateral Meniscus: A Case Report

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ÖZET

Halka (ring) şekilli lateral meniskus yapısı çok sık rastlanılan bir morfolojik varyant olmakla beraber etiyojisi halen netlik kazanmamıştır. 38 yaşında erkek hasta kliniğimize sağ diz ağrısı ve dizinde mekanik kilitleme şikâyeti ile başvurdu. Manyetik rezonans görüntüleme ile diskoid yapıllı lateral meniskuste mevcut bir kova sapı yırtığından şüphelenilerek artroskopi planlanan hastanın, artroskobik değerlendirilmesinde lateral meniskusun halka şekilli olduğu tespit edildi. Bu durum diskoid meniskus varlığı gibi değerlendirilerek tedavi edildi. Halka şekilli meniskus yapısının, diskoid meniskusun dördüncü bir varyantı olduğunu düşünmekteyiz.

Anahtar kelimeler: *Lateral meniskus, Halka şekil, Discoid meniskus*

ABSTRACT

A ring-shaped lateral meniscus is an uncommon morphological variant, and its etiology remains unclear. A 38-year-old male was admitted to our institution complaining of right knee pain and locking. Magnetic resonance imaging suggested a bucket-handle tear in the medial meniscus and a discoid lateral meniscus. On arthroscopic evaluation, however, a ring-shaped lateral meniscus was detected in the lateral compartment. The lesion was saucerized as if it were a discoid meniscus. We believe that a ring-shaped meniscus is a rare fourth variant of a discoid meniscus.

Key words: *Lateral meniscus, Ring-shaped, Discoid meniscus*

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INTRODUCTION

A ring-shaped meniscus is an anomaly that was first reported as a medial side lesion (1). It is controversial whether this lesion has a congenital or traumatic etiology (2,3). More recent case reports have presented a ring-shaped lateral meniscus as an asymptomatic incidental finding (4,5). Arnold et al. reported a 9-year-old female with a symptomatic lateral lesion [6]. Here, we report an adult with a symptomatic ring-shaped lateral meniscus.

CASE REPORT

A 38-year-old male was admitted to our institution with a 2-year history of knee pain, dating to when he had had a tibial plateau fracture treated with open reduction and fixation with cannulated screws (Figure 1).



Figure 1. Anteroposterior and lateral plain radiography

His complaints of pain and locking had worsened over the last month. On examination, the McMurray test was positive, and the medial and lateral menisci capsular junctions were tender. Magnetic resonance imaging (MRI) was reported as showing a discoid lateral meniscus and bucket-handle medial meniscal tear (Figure 2).

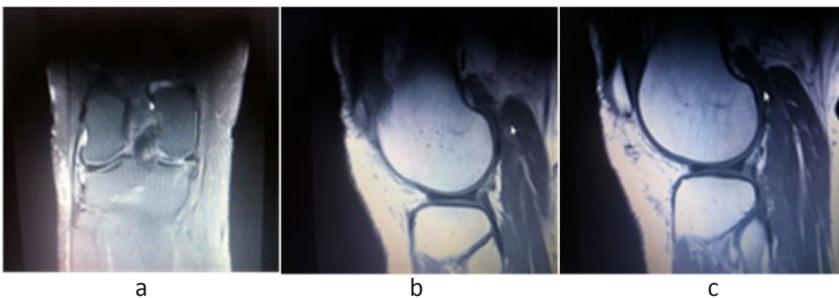


Figure 2. MRI images

Arthroscopic examination revealed a ring-shaped meniscus laterally (Figure 3), degenerative lesions of the medial meniscus and type 3-4 chondral lesions on the medial femoral condyle. The bucket-handle tear of the medial meniscus was treated with a partial meniscectomy. The lateral ring-shaped lesion was saucerized as if it were a discoid meniscus (Figure 4). After six months, the patient's complaints had resolved completely.

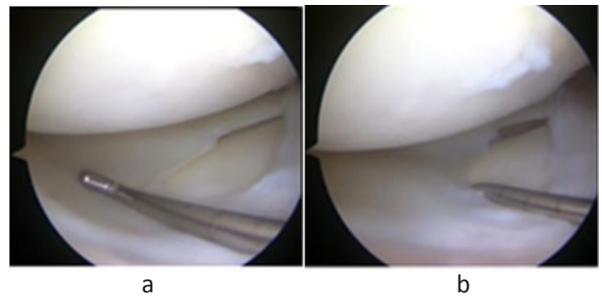


Figure 3. Arthroscopic images of ring shaped lateral meniscus

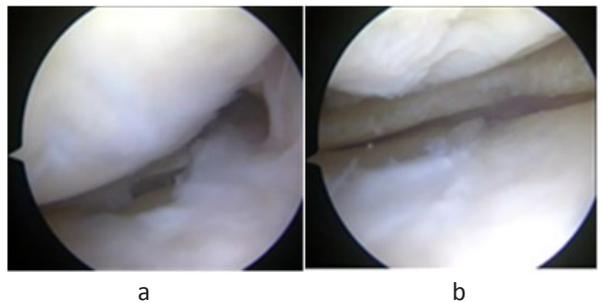


Figure 4. Arthroscopic images of ring shaped lateral meniscus after saucerization

DISCUSSION

Morphological variation is more common in the lateral meniscus than on the medial side. The most common abnormality of the lateral meniscus is a discoid meniscus. Watanabe classified discoid menisci into three forms: complete discoid, incomplete discoid, and the Wrisberg-ligament variant (7). While its incidence is very low in Western populations, the incidence of discoid menisci reaches 20% in Asian populations (8). Ring-shaped lateral menisci are rare, and it remains unclear whether the etiology is traumatic or developmental. In other primates, a completely circular lateral meniscus is the norm (9). Smillie identified 29 discoid menisci in over 1300 arthrotomies; 2 of these had a central hole. The perforations were reported as due to horizontal cleavage of the deformed discoid meniscus caused by friction between the femoral condyle and tibial plateau (10). By contrast, Monllau et al. believe that a ring-shaped meniscus should be added to the Watanabe classification as a fourth type of lesion (5). We agree with this suggestion because the inner rim of the meniscus was regular, like a normal meniscus, and the inner portion of the ring was immobile on arthroscopic examination.

In this case, MRI demonstrated that the lesion was a discoid meniscus and failed to demonstrate a ring-shape structure. We suggest that some patients with an asymptomatic discoid meniscus that is detected incidentally on MRI, in fact, have a ring-shaped meniscus.

Since we believe that a ring-shaped meniscus is a rare fourth discoid variant, we saucerized the meniscus as described by Hayashi et al. (11).

In conclusion, we believe that a ring-shaped lateral meniscus is a rare fourth type of discoid meniscus.

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