

DEGENERATIVE MENISCAL TEAR

Recent prospective, randomized, double-blinded studies have demonstrated that outcomes after arthroscopic lavage or débridement were no better than placebo procedure for knee osteoarthritis, controversy still exists. With proper selection, patients with early degenerative arthritis and mechanical symptoms of locking or catching can benefit from arthroscopic surgery.

J Am Acad Orthop Surg 2002;10:356-363

I INCIDENCE OF MENISCAL TEAR IN OA KNEE IS 63%

Among persons with radiographic evidence of osteoarthritis (Kellgren–Lawrence grade 2 or >2, with higher numbers indicating more definite signs of osteoarthritis), the prevalence of a meniscal tear was 63% among those with knee pain, aching, or stiffness on most days and 60% among those without these symptoms. The corresponding prevalences among persons without radiographic evidence of osteoarthritis were 32% and 23%.

61% of the subjects who had meniscal tears in their knees had not had any pain, aching, or stiffness during the previous month.

Indeed, degenerative meniscal damage appearing as a tear may signal early osteoarthritic disease

N Engl J Med. 2008 Sep 11;359(11):1108-15.

II MORPHOLOGY OF MENISCAL TEAR

The meniscus is a critical tissue in the healthy knee joint because of its shock absorption and load distribution properties.

Meniscal damage is a frequent finding on MRI of the osteoarthritis (OA) knee.

The damage appears as **horizontal, flap, or complex tears**; meniscal maceration; or destruction.

Knee with OA can also lead to a **spontaneous** meniscal tear. A degenerative meniscal lesion often suggests early-stage knee OA.

Surgical resection of nonobstructive degenerate lesions may merely remove evidence of the disorder while the OA and associated symptoms proceed.

Rheum Dis Clin North Am. 2009 Aug;35(3):579-90.

Complex and horizontal cleavage meniscal tears are highly associated with an increased incidence and severity of cartilage degeneration compared with other types of meniscal tears. Degenerative meniscus tears are not as benign as was previously thought.

J Arthroscopic [2005] 21, No 11;1366

III. DOES DEGENERATIVE TEAR ALWAYS CAUSE PAIN

As approximately every third knee of people in these groups has a damaged meniscus, tears are common incidental findings of knee MRI.

However, **as most tears do not** cause symptoms, careful clinical evaluation is required to determine if a damaged meniscus is likely to directly impact a patient's symptoms.

Conservative management of patients with knee pain and a degenerative meniscal tear should be considered as a first-line therapy before surgical treatment is contemplated.

Patients with **mechanical interference** of joint movements, such as painful catching or locking, might need surgical treatment with meniscal repair if possible. An informed consent is important with regard to unpredictable outcome as well as rare complications.

In a subset of patients, meniscal resection might relieve pain and other symptoms that potentially originate directly from the torn meniscus. However, the possibility of an increased risk of OA if functional meniscal tissue is removed cannot be overlooked.

Nat rev rheumatol. 2012 may 22;8(7):412-9.

IV TREATMENT

Although recent prospective, randomized, double-blinded studies have

demonstrated that outcomes after arthroscopic lavage or débridement were no better than placebo procedure for knee osteoarthritis, controversy still exists. With proper selection, patients with early degenerative arthritis and mechanical symptoms of locking or catching can benefit from arthroscopic surgery.

J Am Acad Orthop Surg 2002;10:356-363

V. OUTCOME OF SURGERY

The menisci play a critical protective role for the knee joint through shock absorption and load distribution.

Asymptomatic meniscal tears are common and are frequent incidental findings on knee MR imaging of the middle-aged or older patient.

A meniscal tear can lead to knee osteoarthritis (OA), but knee OA can also lead to a spontaneous meniscal tear through breakdown and weakening of meniscal structure.

A degenerative meniscal lesion in the middle-aged or older patient could suggest early stage knee OA and should be treated accordingly.

Surgical resection of nonobstructive degenerate lesions may only remove evidence of the disorder while the OA and associated symptoms proceeds.

Radiol Clin North Am. 2009 Jul;47(4):703-12.

There is predisposition ONPK [Osteonecrosis Post knee arthroscopy] with increasing knee pain. it is prudent to be aware of this rare complication of arthroscopic surgery in the elderly knee patient, and to make it a routine part of the preoperative discussion with these patients.

Lowe, Current concepts

Bulletin of the NYU 2011;69(4):320-30

CURRENT CONCEPTS MENISCAL TEAR--A FEATURE OF OSTEOARTHRITIS.

Genetic and environmental risk factors interact in OA development. A degenerative meniscal lesion is often associated with early-stage knee OA, a disorder also involving the meniscal tissue. The tear may thus represent the first "signal" feature of

OA. The challenge for the health professional is to discriminate between symptoms caused by a meniscal tear and those caused by OA. Meniscal resection may not benefit the patient with early-stage knee OA. The intervention merely removes evidence of the disorder, while the OA joint degradation proceeds.

Acta Orthop Scand Suppl. 2004 Apr;75(312):1-45

The menisci play a critical protective role for the knee joint through shock absorption and load distribution. Currently, the consensus in surgical treatment of meniscal tears is to preserve as much functional meniscal tissue as possible. The health professional is challenged to choose the best treatment, both in the short- and in the long-term. **A degenerative lesion in the middle-aged or older patient could suggest early-stage knee osteoarthritis and should be treated accordingly.** Surgical resection of nonobstructive degenerate lesions may remove only the evidence of the disorder while the osteoarthritis degradation proceeds. Well-designed randomized, controlled clinical trials are needed.

Rheum Dis Clin North Am. 2008 Aug;34(3):573-9.

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