

Arthroscopic meniscectomy

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Arthroscopic meniscectomy is one of the most common orthopaedic surgical procedures. However, in the long term, it has drawbacks. Ten to 20 years after meniscectomy, there is a 10-fold increase in osteoarthritis, compared to controls.^{1 2} And after 20–30 years, almost three of four patients develop radiographic tibiofemoral osteoarthritis.³ And, as we very well know, knee osteoarthritis is a leading contributor to disability, worldwide.⁴

Over the past decade, we have seen several randomised clinical trials concerning arthroscopic treatment of degenerative knee disease and meniscus surgery. These clearly suggest that arthroscopic meniscectomy offers advantage against neither physical therapy nor sham surgery. Sihvonen *et al*,⁵ for example, report no advantage to partial meniscectomy over sham arthroscopy for patients without osteoarthritis. This confirms that not all meniscal tears need surgery (although it does not go as far as suggesting that none of them do).

For a middle-aged patient with knee pain and a degenerative meniscal tear, our best evidence suggests that a regime of physical therapy would be the correct first option. If patients do not respond to this, they can of course be referred for arthroscopic partial meniscectomy. According to the UK's National Institute for Health and Care Excellence guidelines, patients with mechanical symptoms do present an indication for arthroscopy, even when there is osteoarthritis.⁶

Present evidence, therefore, inclines us away from arthroscopic partial

meniscectomy, unless there has been a (recent) traumatic event or unless there are mechanical symptoms.

Pujol *et al*⁷ present a systematic review of meniscal tears for patients who have undergone anterior cruciate ligament (ACL) reconstruction. They observe that lateral meniscal-lesions posterior to the popliteal hiatus can be left untreated, with good results, whatever the size of the lesion, and with no additional risks for subsequent surgery. The rationale for meniscal surgery in combination with an ACL reconstruction should always be to preserve as much meniscal tissue as possible, and Pujol's results show that undisplaced meniscal lesions can be left untreated. For medial meniscal lesions, however, up to 15% of cases reported residual pain or needed subsequent meniscectomy. Would these patients have been better off if the meniscal lesions had been sutured at the time of the ACL reconstruction? A recent direct comparison of arthroscopic versus arthroscopic partial meniscectomy reveals that the former (meniscal repair) gives better follow-up results, for an average of 8.8 years, in regard to osteoarthritic changes and rates of preinjury sports level.⁸ Brucker *et al*⁹ reported only mild osteoarthritic changes within the related compartment, 21 years following successful open meniscal repair (and these mild osteoarthritic changes were comparable to the contralateral side).

What are the lessons we should learn from this?

1. Do not treat asymptomatic lesions.
2. Treat the patient and not the MRI.
3. When you discover asymptomatic meniscal lesions during an ACL reconstruction, consider suturing them.

Competing interests None declared.

Provenance and peer review Not commissioned; internally peer reviewed.



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To cite Van Dijk N. *JISAKOS* 2016;**1**:123.

Received 18 May 2016

Accepted 19 May 2016

JISAKOS 2016;**1**:123.

doi:10.1136/jisakos-2016-000065

REFERENCES

- 1 Roos H, Laurén M, Adalberth T, *et al*. Knee osteoarthritis after meniscectomy: prevalence of radiographic changes after twenty-one years, compared with matched controls. *Arthritis Rheum* 1998;**41**:687–93.
- 2 Englund M, Lohmander LS. Risk factors for symptomatic osteoarthritis fifteen to twenty-two years after meniscectomy. *Arthritis Rheum* 2004;**50**:2811–19.
- 3 Paradowski PT, Lohmander LS, Englund M. Osteoarthritis of the knee after meniscal resection: long term radiographic evaluation of disease progression. *Osteoarthritis Cartilage* 2015;**24**:794–800.
- 4 Murray CJ, Vos T, Lozano R, *et al*. Disability—adjusted life years (DALYs) for 291 diseases and injuries in 21 regions 1990–2010: a systematic analysis for the global burden of diseases study 2010. *Lancet* 2012;**380**:2197–223.
- 5 Sihvonen R, Paavola M, Malmivaara A, *et al*. Arthroscopic partial meniscectomy versus sham surgery for a degenerative meniscal tear. *N Engl J Med* 2013;**369**:2515–24.
- 6 National Institute for Health and Care Excellence (NICE). *Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis*. UK: NHS, 2007.
- 7 Pujol N, Beaufils P. During ACL reconstruction small asymptomatic meniscal lesions can be left untreated: a systematic review. *JISAKOS* 2016;**1**:135–40.
- 8 Stein T, Mehling AP, Welsch F, *et al*. Long-term outcome after arthroscopic meniscal repair versus arthroscopic partial meniscectomy for traumatic meniscal tears. *Am J Sports Med Aug* 2010;**38**:1542–8.
- 9 Brucker PU, von Campe A, Meyer DC, *et al*. Clinical and radiological results 21 years following successful, isolated, open meniscal repair in stable knee joints. *Knee* 2011;**18**:396–401.

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