Letter to the Editor

Letter to Editor: Editorial: Appropriate Use? Guidelines on Arthroscopic Surgery for Degenerative Meniscus Tears Need Updating

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To the editor,

We read your editorial [14] with great interest and agree with your conclusions that the American Academy of Orthopaedic Surgeons guidelines and its accompanying appropriate-use cri-

teria need to be updated. Arthroscopic partial meniscectomy is the most-frequently performed orthopaedic procedure. Its indication is not always perfectly defined, particularly when it comes to degenerative meniscal lesions. Partial meniscectomy is therefore probably too frequently performed, given that all but one [8] recently published randomized clinical trials [10–13, 15, 18, 19] demonstrated no additional benefit of arthroscopic partial meniscectomy in comparison to nonoperative treatment. These publications generated an intense and controversial debate through editorials and letters [3, 6], as well as a critical reconsideration of the indication for arthroscopy in degenerative meniscus lesions.

There are various reasons for the discrepancy between high-level scien-

tific evidence and clinical practice, including a general resistance to change among clinicians, as well as the fact that patients included in randomized clinical trials may not be fully representative of those presenting with knee pain in the daily practice [4, 5]. Katz and colleagues [12], for example, identified only 2.4% of all patients of a multicenter study fulfilling the inclusion criteria. Sihvonen and colleagues [17] included only 146 patients from five orthopaedic clinics during a period of 5 years. Additionally, a number of patients required arthroscopy after failed nonoperative treatment, despite the highly selective inclusion criteria. In a similar approach on surgery for cartilage defects, Engen and colleagues [7] demonstrated that patients qualifying for inclusion in randomized clinical trials represented only 4% of those presenting in their cartilage clinic.

Although randomized clinical trials represent the highest available scientific level, it remains difficult to directly transfer their conclusions into daily clinical practice. Therefore, the surgical community needs a more uniform and clear message, perhaps

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Letter to the Editor

balancing these two controversial options with nonoperative treatment on one end and arthroscopic partial meniscectomy on the other end of our therapeutic armamentarium.

In an editorial published in 2015, we wrote: “The necessity of a consensual process becomes clear, founded on the independence of the organizers and with the participation of all interested parties to produce the most exhaustive critical analysis of the literature possible. Work of this kind will permit a probable reduction in the number of arthroscopic meniscal resections in our countries in favor of abstention and meniscal repair and an improved nosological definition of the meniscectomy, rendering it pertinent and efficient” [2]. It appeared that a consensus should therefore not only be based on highest scientific level, but also on clinical expertise [16]. With that in mind, the European Society for Sports Traumatology, Knee Surgery, Arthroscopy (ESSKA), developed the ESSKA Meniscus Consensus Project. This project, chaired by two authors of this letter (PB, RB), followed the strict Formal Consensus Process [9] and involved 84 physicians or scientists from 22 European countries [1].

The two main messages of the consensus are as follows (Fig. 1):

- The decision-making process must be based on a standardized clinical and imaging work-up. MRI is not a

first-line imaging tool. Standard knee radiographs are still recognized as the first imaging

procedure, mainly to rule out underlying osteoarthritis. MRI overuse may lead to meniscectomy

Fig. 1 The ESSKA meniscus consensus algorithm for degenerative meniscus lesions is shown. Originally published open access in: Beaufils P, Becker R, Kopf S, Englund M, Verdonk R, Ollivier M, Seil R. Surgical management of degenerative meniscus lesions: the 2016 ESSKA meniscus consensus. *Knee Surg Sports Traumatol Arthrosc.* 2017;25:335-346.

Letter to the Editor

overuse through an over-diagnosis of symptomatic degenerative meniscal lesions.

- Arthroscopic partial meniscectomy is not the first-line treatment of degenerative meniscus lesions. Instead, nonoperative treatment should be considered as the primary treatment for a duration of at least 3 months. Arthroscopic partial meniscectomy should be considered only after failure of the latter. In some exceptional cases, the presence of “considerable” mechanical symptoms may constitute an early indication for arthroscopic partial meniscectomy. Although the concept of mechanical symptoms in the context of degenerative meniscal lesions is evolving [17], we still lack of a precise definition of these clinical signs.

Considering Europe’s diversity in terms of medical culture and healthcare systems, finding a consensus was not easy. Although the countries are different, our patients remain the same, and so our practice should not be adapted to a specific healthcare system, but rather, the healthcare systems should be adapted to our best clinical practice.

The first agreement of the European Consensus statement was the primary conservative treatment of a degenerative meniscal lesion. In addition to

this, the initiative identified several items which are not well defined and require further investigation including the definition and subtype of a degenerative meniscal lesion, the cause of pain occurring in this clinical setting, the precise definition of a “mechanical symptom”, the content of nonoperative treatment (that is, home or supervised exercises, nonsteroid inflammatory drugs, injections, and even therapeutic abstention), as well as the ideal timing to consider surgery.

Finally, as mentioned in your editorial, a consensus within a well-defined orthopaedic group is only a snapshot of a given moment in time. Guidelines must be updated as further evidence will be added to the current understanding of the problem. However, we hope this consensus will assist clinicians in their decision-making processes and that it will contribute to generate further consensus publications.

References

1. Beaufils P, Becker R, Kopf S, Englund M, Verdonk R, Ollivier M, Seil R. Surgical management of degenerative meniscus lesions: The 2016 ESSKA meniscus consensus. *Knee Surg Sports Traumatol Arthrosc.* 2017;25:335–346.
2. Beaufils P, Becker R, Verdonk R, Aagaard H, Karlsson J. Focusing on results after meniscus surgery. *Knee Surg Sports Traumatol Arthrosc.* 2015;23:3–7.
3. Bollen SR. Is arthroscopy of the knee completely useless? Meta-analysis—a reviewer’s nightmare. *Bone Joint J.* 2015;97B:1591–1592.
4. Chess LE, Gagnier J. Risk of bias of randomized controlled trials published in orthopaedic journals. *BMC Med Res Methodol.* 2013;13:76.
5. Clavien PA, Puhan MA. Biased reporting in surgery. *Br J Surg.* 2014;101:591–592.
6. Elattrache N, Lattermann C, Hannon M, Cole B. *New England Journal of Medicine* article evaluating the usefulness of meniscectomy is flawed. *Arthroscopy.* 2014;30:542–543.
7. Engen CN, Engebretsen L, Årøen A. Knee cartilage defect patients enrolled in randomized controlled trials are not representative of patients in orthopedic practice. *Cartilage.* 2010;1:312–319.
8. Gauffin H, Tagesson S, Meunier A, Magnusson H, Kvist J. Knee arthroscopic surgery is beneficial to middle-aged patients with meniscal symptoms: A prospective, randomised, single-blinded study. *Osteoarthritis Cartilage.* 2014;22:1808–1816.
9. Haute Autorité de Santé. Formal consensus” method. Available at: http://www.has-sante.fr/portail/jcms/c_272505/en/-formal-consensus-method. Accessed May 9, 2017.
10. Herrlin S, Hållander M, Wange P, Weidenhielm L, Werner S. Arthroscopic or conservative treatment of degenerative medial meniscal tears: A prospective randomised trial. *Knee*

Letter to the Editor

- Surg Sports Traumatol Arthrosc.* 2007;15:393–401.
11. Herrlin SV, Wange PO, Lapidus G, Hållander M, Werner S, Weidenhielm L. Is arthroscopic surgery beneficial in treating non-traumatic, degenerative medial meniscal tears? A five year follow-up. *Knee Surg Sports Traumatol Arthrosc.* 2013;21:358–364.
  12. Katz JN, Brophy RH, Chaisson CE, de Chaves L, Cole BJ, Dahm DL, Donnell-Fink LA, Guermazi A, Haas AK, Jones MH, Levy BA, Mandl LA, Martin SD, Marx RG, Miniaci A, Matava MJ, Palmisano J, Reinke EK, Richardson BE, Rome BN, Safran-Norton CE, Skonieczki DJ, Solomon DH, Smith MV, Spindler KP, Stuart MJ, Wright J, Wright RW, Losina E. Surgery versus physical therapy for a meniscal tear and osteoarthritis. *N Engl J Med.* 2013;368:1675–1684.
  13. Kirkley A, Birmingham TB, Litchfield RB, Giffin JR, Willits KR, Wong CJ, Feagan BG, Donner A, Griffin SH, D’Ascanio LM, Pope JE, Fowler PJ. A randomized trial of arthroscopic surgery for osteoarthritis of the knee. *N Engl J Med.* 2008;359:1097–1107.
  14. Leopold SS. Editorial: Appropriate use? Guidelines on arthroscopic surgery for degenerative meniscus tears need updating. *Clin Orthop Relat Res.* 2017;475:1283–1286.
  15. Moseley JB, O’Malley K, Petersen NJ, Menke TJ, Brody BA, Kuykendall DH, Hollingsworth JC, Ashton CM, Wray NP. A controlled trial of arthroscopic surgery for osteoarthritis of the knee. *N Engl J Med.* 2002;347:81–88.
  16. Seil R, Karlsson J, Beaufils P, Becker R, Kopf S, Ollivier M, Denti M. The difficult balance between scientific evidence and clinical practice: The 2016 ESSKA meniscus consensus on the surgical management of degenerative meniscus lesions. *Knee Surg Sports Traumatol Arthrosc.* 2017;25:333–334.
  17. Sihvonen R, Englund M, Turkiewicz A, Järvinen TLN, Finnish Degenerative Meniscal Lesion Study Group. Mechanical symptoms and arthroscopic partial meniscectomy in patients with degenerative meniscal tear: A secondary analysis of a randomized trial. *Ann Intern Med.* 2016;164:449–455.
  18. Sihvonen R, Paavola M, Malmivaara A, Itälä A, Joukainen A, Nurmi H, Kalske J, Järvinen TL; Finnish Degenerative Meniscal Lesion Study (FIDELITY) Group. Arthroscopic partial meniscectomy versus sham surgery for a degenerative meniscal tear. *N Engl J Med.* 2013;369:2515–2524.
  19. Yim J-H, Seon J-K, Song E-K, Choi J-I, Kim M-C, Lee K-B, Seo H-Y. A comparative study of meniscectomy and nonoperative treatment for degenerative horizontal tears of the medial meniscus. *Am J Sports Med.* 2013;41:1565–1570.