

Review: Clinical evidence and consensus support the recommendation of 15 interventions in hip osteoarthritis

Zhang W, Doherty M, Arden N, et al. EULAR evidence based recommendations for the management of hip osteoarthritis: report of a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics (ESCSIT). *Ann Rheum Dis*. 2005; 64:669-81.

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QUESTION

What are the effective and cost-effective therapies for hip osteoarthritis (OA)?

METHODS

Data sources: MEDLINE, EMBASE/Excerpta Medica, CINAHL, and the Cochrane Library (January 1966 to March 2004); and reference lists of reviews.

Study selection and assessment: A multidisciplinary panel of experts generated 10 propositions regarding OA treatment using a Delphi technique. Evidence supporting each proposition was sought from systematic reviews and original studies including randomized controlled trials (RCTs), observational and case-control studies, and economic evaluations with clinical outcomes for hip OA. Evidence was categorized according to study design.

Outcomes: Pain relief, improvement in function, side effects, and cost-effectiveness.

MAIN RESULTS

461 studies met the selection criteria (15% were RCTs). The interventions were acetaminophen (44 studies); nonsteroidal anti-inflammatory drugs, cyclooxygenase-2 (COX-2)-selective inhibitors, and gastroprotective agents (287 studies); symptomatic slow-acting drugs for OA (41 studies); opioid

analgesics (26 studies); intraarticular steroid injection (7 studies); nonpharmacologic treatments (22 studies); and surgery (total hip replacement and osteotomy) (34 studies). The highly recommended interventions based on meta-analyses or RCTs are in the Table. As adjunctive therapy for patients prescribed antiinflammatory drugs, gastroprotective agents were found to reduce adverse effects. The evidence from the 1 RCT of intraarticular steroid injection was insufficient to assess the efficacy of this treatment. No RCTs compared total hip replacement with conservative treatments. Interventions with less compelling evidence but recommended by expert consensus were pharmacologic plus nonpharmacologic treatment;

treatment tailored for risk factors, severity of OA, and patient expectations; footwear insoles or walking stick; weight loss; hyaluronic acid; osteotomy; and total hip replacement. Strong evidence supported not recommending avocado/soybean unsaponifiable substances (2 RCTs).

CONCLUSION

In patients with hip osteoarthritis, 5 interventions are supported by controlled-trial evidence for relieving pain and improving function.

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Interventions with strong evidence (meta-analysis and RCTs) supporting their efficacy in providing pain relief and improving function in hip osteoarthritis*

Interventions	Number of RCTs (duration)	Side effects	Cost-effectiveness
Education	1 (24 mo)	Not available	Not available
Nonsteroidal antiinflammatory drugs	1 meta-analysis (14 RCTs) (1 to 20 wk)	GI	Not available
Cyclooxygenase-2 selective inhibitors	Not available	Cardiovascular	In patients with higher GI risk
Opioids	1 (4 wk)	GI, central nervous system	Not available
Chondroitin	1 (6 mo)	Not available	Not available

*RCTs = randomized controlled trials; GI = gastrointestinal.

COMMENTARY

The gold standard for assessing management of osteoarthritis of the hip, a common, often disabling disease, is arguably the panel of multi-disciplinary experts on whose deliberations this review by Zhang and colleagues is based. The panel analyzed all published trials, selected a consensual agenda of the important issues, and produced a report as meticulously quantified as the diffuse clinical evidence would allow. An interesting and undoubtedly reassuring exercise for established clinicians and trainees would be to audit their own practice and then compare it with this gold standard.

The review contains few surprises. It upholds the principle that pain and functional deterioration supported by radiographic evidence determine the transition from conservative management to hip replacement. Choice of pain-relieving drugs should start with the simplest and least dangerous; progression to more potent drugs must take individual risk factors into account. Currently, paracetamol (acetaminophen) is the first-line choice. Recent concern about the cardiovascular hazards of COX-2 inhibitors emphasizes the need for long-term vigilance. Even codeine has its problems.

The panel rightly stresses the great difficulty in devising ethically acceptable controlled trials that would formally establish the indications for total hip replacement. Open trials and patient preferences show that the current choice is between surgery and relatively ineffective palliation. The truth of this assertion is reinforced by the at-best minimal efficacy of many popular remedies studied in this review, such as glucosamine and hyaluronic acid supplements. Thus RCTs comparing surgical intervention with “conservative” therapy must await the development of more promising medical innovations. The review is also a potent counter to some of the wild claims on the Internet for the efficacy of dubious remedies. Recommendations for future research include conducting more randomized controlled trials of OA treatments with appropriate clinical endpoints and rigorously evaluating radiologic and biological measures of disease progression. Meanwhile, symptom severity and functional disability will continue to be the major determinants of management.

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