Meniscal degeneration and osteoarthritis: GP management

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Management of meniscal degeneration of the knee in osteoarthritis: the role of primary care, imaging and arthroscopy

Why is this a hot topic?
A recent systematic review\(^1\) of the benefits and harms with arthroscopic surgery for treating degenerative changes in the knee provoked a brisk debate in the media and the medical profession.\(^2\) This coincided with the publication of the NICE Quality Standard on Osteoarthritis, which summarises best practice, outlines the role of primary care and highlights the wide variation in surgical intervention rates.\(^3\) In primary care, 20% of GPs’ registered patients will present each year with a musculoskeletal problem, accounting for 14% of total GP consultations per year.\(^4\) About 12% of the population have symptomatic osteoarthritis,\(^5\) and half of these patients will have moderate or severe lower limb osteoarthritis. In this article we present a case study to illustrate the recent debate.

Scenario
A 55yr old deputy headmaster presents to his GP with a three month history of pain over the medial aspect of the right knee. The pain is worse going downstairs or walking for more than two hours. He describes short-lived stiffness in the knee on getting out of bed or a chair for a few minutes. Occasionally, there is mild swelling around the knee after a long walk, but this resolves with overnight rest. There is no history of locking or giving way. He is a keen rambler, overweight (BMI 31.2) and has mild hypertension. He has tried ice and an elasticated knee support. The only significant finding is mild joint line tenderness over the antero-medial aspect of the knee.

What is the likely diagnosis?
Based on the diagnostic criteria reviewed in the full NICE guideline, the most likely diagnosis is osteoarthritis.\(^5\) Features that fit the clinical diagnosis include: gradual onset, no history of significant trauma, age over 45, activity related joint pain, absent or short-lived morning joint stiffness. Many patients with troublesome osteoarthritis of the knee present with gelling; a feeling that the knee is stiff after a long walk, but this resolves with overnight rest. There is no history of locking or giving way. He is a keen rambler, overweight (BMI 31.2) and has mild hypertension. He has tried ice and an elasticated knee support. The only significant finding is mild joint line tenderness over the antero-medial aspect of the knee.

What is your initial advice?\(^5\)
Assess the patient’s pattern and level of pain, the impact on activities and his overall quality of life, including his mood. Provide advice to allow him to self-manage his condition. This would include: discussion and advice about osteoarthritis, including written materials or a link to accredited information on the web, a sensitive discussion about the benefits of losing weight, advice on maintaining general cardiovascular fitness and specific exercises to strengthen the muscles around his knee, advice on supportive and cushioned footwear, advice on management of flare-ups including ice, compression and modifying activities to promote recovery, signposting to local exercise and leisure facilities and help with losing weight. If provision of these ‘core
treatments’ are insufficient, he may require analgesics to help him to remain active and continue with specific exercises. An NSAID gel would be a good first choice, balancing moderate effectiveness with low risk of harm.

What next?
NICE recommends adjuncts to core treatments to enable the patient to remain active and continue with muscle strengthening exercises.\(^5\) NICE recommends manual therapy as an adjunct to core treatments.\(^5\) For instance, you could refer him to a physiotherapist. Other adjuncts recommended by NICE include oral analgesics and intra-articular corticosteroid injections.\(^5\)

I’m concerned about other diagnoses.
GP s are trained to manage diagnostic uncertainty and undifferentiated symptoms. The full NICE guideline discusses the signs and symptoms of alternative and serious underlying pathology.\(^5\) If these are likely, then consider further investigations such as blood tests or imaging. However, if there are no other likely diagnoses, take into account that imaging (X-rays, MRI and ultrasound scans) to identify alternative pathology or other sources of pain has poor sensitivity and specificity, unless a specific diagnosis is being sought. Consider a second opinion from a colleague or physical therapist to reassure him about the clinical diagnosis.

When should I refer for surgery?
Osteoarthritis in the early stages presents with fluctuating symptoms, and progression in a particular joint or a particular person is very variable. A discussion with this patient with knee pain needs to balance that his symptoms are likely to improve with conservative management and that although his symptoms might also improve with surgery; there are risks and complications, including the higher risk of requiring joint replacement surgery at an earlier age following arthroscopic lavage or debridement.\(^1\) NICE only recommends referral for arthroscopy lavage or debridement where there is a clear history of mechanical locking, as opposed to the morning joint stiffness that our patient above presented with.\(^5\)

In a person with more pain and functional impairment, a decision on referral needs to consider the loss of quality of life by operating too late for a person to get the best outcome from surgery; although surgery may improve pain, recovery of function may be more limited if the person is referred too late. NICE advises that a decision to refer for consideration of surgery should be based on an individual discussion and does not recommend the use of scoring tools or blanket thresholds for referral.\(^3\) The current drive to move services out of hospital means that these discussions will usually start in primary care, or with extended scope therapists and specialists working in community musculoskeletal clinics.

If I am referring for an opinion about surgery, what investigations should I consider?
We need to distinguish the use of imaging in diagnosis versus the use of imaging to plan a surgical intervention. NICE undertook two systematic reviews regarding the use of imaging to confirm a diagnosis of osteoarthritis and to rule in or out alternative diagnoses, and did not recommend the use of imaging unless there were specific features in the history or examination that suggested serious alternative underlying pathology (red flags).\(^5\) However, for a person on a surgical pathway, imaging will have an important role in defining the extent of the surgery required, the instrumentation to be used, and to refine the prognosis with surgery. For our patient with knee pain, above, a standard non-weight bearing X-ray would be inadequate to assess the detailed surgical options. Primary care clinicians should only request more detailed imaging where there are local shared-care protocols for working up patients for surgery and these have been explicitly commissioned. The British Orthopaedic Association (BOA) Commissioning Guide for painful osteoarthritis of the knee recommends imaging to support specialist assessment where the patient is clearly on a surgical pathway, and where core treatments are ineffective or inappropriate, a shared decision making process has considered the benefits and risks of surgery, and the person is happy to proceed.\(^5\)

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