Osteoarthritis of the hip and knee, Part 1: Pathogenesis and nonsurgical management

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Osteoarthritis (OA) is the most common chronic disease affecting British Columbians. Family physicians manage patients with osteoarthritis on a daily basis using strategies that range from reassurance to surgical intervention. Large joint OA, as exemplified by hip and knee osteoarthritis, places a significant burden on society because of the disability associated with it. Patients affected by OA of the hip and knee often require surgical intervention.

With the increasing emphasis on joint replacement, it is important to consider the entire spectrum of disease and the journey of patients with OA of the hip or knee from diagnosis to nonoperative treatment and finally to surgical intervention. This first part in a two-part theme issue on OA of the hip and knee explores the patholgenetic mechanisms and several aspects of nonsurgical management.

In the first article here, Drs Hasan and Shuckett discuss the epidemiology of hip and knee OA and factors in its genesis. The figures that they include about the burden of disease are indeed sobering. The authors discuss the risk factors for OA, allowing us as practitioners to potentially change patients' behavior at a young age and lessen the likelihood of this disease with aging. They also discuss clinical presentation and radiographic findings, allowing an easier understanding of when to suspect OA in a patient and when to proceed to a radiographic review. The authors clearly delineate the indications for plain radiographs and MRI. With improved access to MRI, we often see patients presenting with OA with an MRI as the initial radiographic investigation. The take-home message is that an MRI should be reserved for use when X-rays do not indicate OA.

Many modalities for nonoperative treatment for OA of the hip and knee exist. In the second article here, Drs Hawkeswood and Reebye discuss the evidence behind these modalities. This article serves not only as a guide for practitioners, but also as a summary for patients who are considering each of these modalities. The article demystifies these modalities and allows the physician and patient to understand the relative merits of each treatment, from footwear and weight loss to the use of canes.

In the third article here, Drs Kennedy and Moran continue the discussion of nonoperative management, but this time from the pharmacological point of view. They discuss the role of oral medications as well as joint injections. This sets the stage for their discussion of the indications for surgical intervention, and when to consider referral to an orthopaedic surgeon.

By focusing on the earlier stages of OA and considering diagnosis and nonoperative management, all the articles in Part 1 of this theme issue pave the way for the articles in Part 2, which will discuss surgical modalities.

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