Musculoskeletal Monthly

An evidence-based newsletter related to the management of musculoskeletal disorders

Effective and cost efficient management of patients with hip and knee osteoarthritis

Osteoarthritis (OA) is the most common cause of disability in the United States. Approximately 1/3 of all people over 60 years of age suffer from knee OA that limits their ability to rise from a chair, stand, walk and use stairs.[1-3] Thirty-forty percent of people with knee OA also have hip OA and younger individuals (<40) are often affected.[4-6] The number of people with functional limitations caused by arthritis is projected to climb to 11.6 million in 2020[7] and the economic burden is staggering. In 2000 alone the cost associated with medical care related to OA was estimated at 60 billion dollars annually.[8]

Diagnosis: Although osteoarthritis is a disease that causes degeneration of articular cartilage and bony changes at the joints, many patients often have symptoms of knee OA prior to radiographic changes taking place. Further, 40% of people with radiographic findings that are typical of OA are asymptomatic.[9, 10] Because of this confounding factor, clinical correlation with radiographic findings is required for diagnosis.[9] Altman's criteria for the clinical diagnosis of OA have good sensitivity and specificity for the diagnosis of patients with OA and may be helpful for determining which patients may benefit from physical therapy[4, 9]:

Table 1

Altman Classification of OA of the Knee Sn= .91 Sp= .86
Knee pain and osteophytosis of the knee, plus one of the following:
Age >50
Morning Stiffness <30 minutes
Crepitus

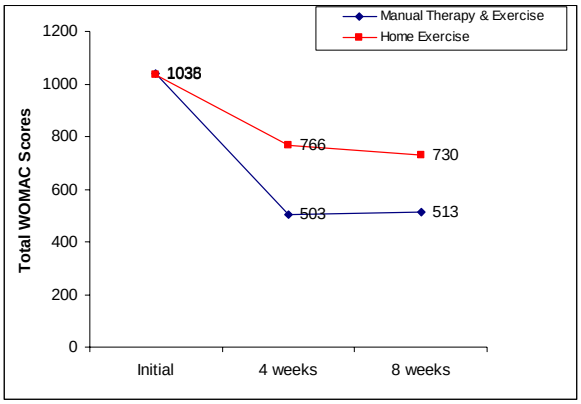
Table 2

Altman's Criteria for Diagnosis of Hip OA Sn= .86 Sp= .75
Hip pain and:
<15 IR and <115 flexion in hip joint
OR
>15 IR, pain with IR and AM stiffness <1 hr

Treatment for OA commonly consists of acetaminophen and non-steroidal anti-inflammatory medication, despite the fact that The advantage of oral NSAIDs (including COX 2 agents) over placebo for short term pain relief is small.[11] Because of the serious adverse effects associated with oral NSAIDs use, only limited use has been recommended.[12] In addition, traditional physical agents such as moist heat and ultrasound are not of significant therapeutic value.[13, 14] On the other hand, several interventions utilized by physical therapists *have* been shown to result in large treatment effects.

Manual physical therapy, consisting of joint and soft-tissue manipulation and mobilization, combined with exercise is more effective than a home exercise program alone for reducing pain and disability in patients with knee OA (figure 1). Patients frequently report a 20 – 40% relief of symptoms within 3 – 4 visits. In addition, patients treated with manual physical therapy and exercise are also less likely to be taking medication for their OA and more satisfied with care than their counterparts who received a home exercise program only.[15] This same treatment approach has been shown to decrease the number of injections (NNT=10) and total knee arthroplasty (TKA) procedures at 1year. when compared to a placebo intervention and walking program (NNT= 7; 1 TKA is prevented for every

7 patients who receive manual physical therapy & exercise than would have otherwise been



realized with the alternative intervention).[16]

Figure 1 WOMAC Disability Scores (lower score= less disability) Deyle GD, Allison SC et al. Physical Therapy Treatment Effectiveness for Osteoarthritis of the Knee: A Randomized Comparison of Supervised Clinical Exercise and Manual Therapy Procedures Versus a Home Exercise Program. Physical Therapy. 2005;85:1301-1317

Likewise, a similar large effect for reducing pain and disability lasting up to 6 months is observed in patients with hip OA who are treated with manual physical therapy and stretching compared to those receiving exercise alone.[17]

At Texas Physical Therapy Specialists, we use an evidence-based approach to manage patients with hip and knee OA. We welcome any questions you may have as well as referrals of patients that would likely benefit from this approach. In the next issue of Musculoskeletal Monthly, Dr. Childs and I will discuss effective interventions for the treatment of shoulder pain. Meanwhile, we look forward to serving you and your patients with quality care and resources.

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