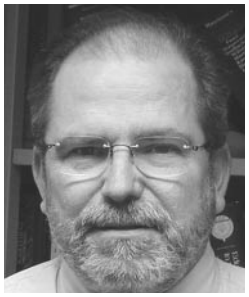
Editorial

Arthritis, Continuing Medical Education, and Oil Sand: Changes in Market Forces Can Alter Perceptions of an Underutilized Resource



By now the litany of health statistics that begins most editorials and research articles on the risk factors, diagnosis, and treatment of osteoarthritis (OA) has become maddeningly familiar: OA is the most common specific joint disease in humans[1]. OA is among the top 10 causes of disability globally[2] and the most frequent indication for joint replacement surgery[3]. The relentless aging of populations in many Western countries is expected to result in an epidemic of OA-related pain, functional impairment, and disability, the treatment of which will tax healthcare systems and economies to the breaking point[4].

While many advances in the treatment of OA have been pursued in recent years, little has happened to substantially alter the prospects for effective treatment or prevention of OA for the foreseeable future. This has not been for lack of heroic effort. Contemporary approaches to the pharmacologic management of OA pain often entail the use of newer nonsteroidal antiinflammatory drugs (NSAID) that are considered slightly less likely than their predecessors to cause serious gastrointestinal side effects. However, NSAID historically have resulted in only modest improvements in OA pain (about 20% relative to baseline)[5], and many OA patients do not judge the analgesic effect of an NSAID to be greater than that of acetaminophen[6]. The prospect of widespread management of OA pain with a notably safer, albeit no more effective, class of cyclooxygenase-1-sparing NSAID (coxibs) has evaporated due to information that has come to light concerning serious cardiovascular side effects associated with these drugs[7]. Other putative advances in OA treatment (e.g., viscosupplementation, nutriceuticals, knee braces, wedged in-shoe orthotics, thermal modalities, patellar taping) have failed, for a variety of reasons, to achieve widespread usage. Still others (e.g., tidal irrigation) have failed to demonstrate more than a placebo effect on OA pain in clinical trials[8]. Moreover, while recent research provides evidence that disease modification in OA is feasible and can be demonstrated with available research methodologies and procedures[9], we have yet to identify a drug that unequivocally slows or halts the structural and symptomatic progression of OA.

In his half-century retrospective on "advances" in the treatment of OA, Brandt[10] reviewed the above-mentioned areas and concluded that the greatest hope for relief of the public health problem that OA poses "may lie with the behaviorist, rather than with the molecular biologist, biochemist, or pharmacologist" (page 121). Indeed, patient education and behavioral counseling in self-management of OA have been shown to have robust, if moderate, effects on pain and disability in a variety of patient populations[11]. The éducation Douleur (e.Dol) study conducted by Chassany, *et al* and published in this issue of *The Journal*[12] provides evidence that patient outcomes may also be improved by a concerted effort to instruct the primary care physicians who care for OA patients in an effective approach to managing musculoskeletal pain.

Among the noteworthy features of the e.Dol study is its use of conventional methods of continuing medical education (CME) to instruct general practitioners (GP) in OA pain management. In this day of technology-driven distance learning, it is important to note that participation in a traditional, easily exportable CME workshop series can lead to improvements in OA care and patient outcomes. What should not be overlooked, however, are the general qualities embodied in the e.Dol workshops that appear to be the keys to its success. These qualities include an authoritative set of care recommendations, an analysis of those recommendations vis à vis credible data on the educational needs (i.e., knowledge, skills, beliefs) of physicians participating in the workshops and their patients, and use of interactive teaching methods suited to the learning objectives of the workshops. Beyond these general qualities, the specific emphasis on the role of the clinical communication and the doctor-patient relationship in the e.Dol intervention appears particularly well chosen. Physicians well versed in the objective risks and benefits of treatment options in OA cannot be assumed to be as facile in appreciating the variability from patient to patient in subjective experiences with OA pain. Discrete attention to clinical communication and provision of a conceptual framework within which to talk to patients about the connection between mind and body (i.e., the

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biopsychosocial model[13]) were probably instrumental in this program's success in helping patients make swift improvements in their OA pain.

That said, there are other aspects of this research that should moderate our enthusiasm about the implications for practice of the e.Dol study. The duration of observation was very short (16 days). It cannot be assumed that one clinical encounter between GP and patient and 16 days of followup form a sufficient basis on which to conclude that the doctor-patient relationship underwent a permanent change for the better. However, there is every reason to believe that if the changes in communication about pain brought about by the e.Dol workshops were to continue over the course of multiple visits, improvements in patient outcomes would be maintained accordingly.

One must also note that subjects in both treatment groups exhibited large improvements relative to baseline in both visual analog scale (VAS) pain scores (39–49%) and Lequesne index (20–27%). While group comparisons favored the patients of GP trained in the pain-management workshops, the degree of improvement in both groups makes it difficult to discount either the placebo effect or regression to the mean as possible explanations for the observed gains. The long list of inclusion and exclusion criteria for this study resulted in a sample of patients who were highly symptomatic (baseline VAS $\geq$ 40 mm), but who had not undergone any important change in OA therapy in the weeks and months leading up to the trial. This sample may represent a population of patients who would have responded to any apparent effort to address their OA pain.

The results of the e.Dol study highlight a parallel that can be drawn between 2 disparate fields of public policy: anticipating the public health problem of OA and meeting the global demand for energy. When the market price of crude oil was $20–25 per barrel, many alternative sources of energy were considered far too costly to be competitive. Now the global demand for oil has effectively tripled that price — with little prospect of a decrease in the foreseeable future. Suddenly, alternative sources of petroleum-based energy (notably oil sand from Alberta and oil shale in Colorado) are eminently feasible from an economic standpoint — even with *in situ* extraction methods that are less damaging to the environment than strip mining. While this observation should not be taken as an endorsement of any particular position on alternative energy sources, market forces similar to those that influence national energy policies are at work in the public health arena as it relates to OA. The prevalence of OA and associated demand for resources to treat patients with moderate disability will continue to grow at an astronomical rate. We cannot count on advances of a pharmacologic nature that will afford the easy means by which to prevent OA, slow its progression, or even alter significantly the cost:benefit ratio of treating OA symptoms. What we are left with is the prospect of becoming better physicians when it comes to helping patients cope with OA pain, functional limitations, and disability. And in this regard, the e.Dol study offers some reason to hope that we can do a better job of managing OA with the tools that we have. The keys would seem to be a deeper understanding of how patients cope effectively with their OA and a greater facility in communicating about the management of OA pain with therapeutic modalities of limited efficacy. Perhaps this realization will motivate renewed interest in research on effective CME for the physicians who treat patients with OA. This would be advisable because we are far from knowing yet which types of patients do or do not respond to the message promoted by the e.Dol workshops. Nor do we know how to maintain a new dynamic between doctor and patient over the many years during which this relationship will transpire.

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