Volume 67, Number 2, March/April 2006

## Announcement

## The Charles R. Ream, MD, Award for Excellence—2005

The editorial board of *Current Therapeutic Research* is pleased to announce the recipient of the Charles R. Ream, MD, Award for Excellence—2005. "Effects of Pentosan Polysulfate in Osteoarthritis of the Knee: A Randomized, Double-Blind, Placebo-Controlled Pilot Study," by Ghosh et al, has been selected based on Dr. Ream's commitment to high-quality randomized controlled studies with a direct and relevant scientific impact. The article by Ghosh et al demonstrated that even relatively small pilot studies can be implemented according to solid principles of clinical trial design.

Osteoarthritis is a chronic, debilitating disease that often leads to significant disability. Knee osteoarthritis (KOA) might affect up to 10% of individuals aged >55 years and cause severe disability in one quarter of these patients.<sup>2</sup> Current pharmacologic therapies for KOA aim to reduce radiographic joint-space narrowing and manage pain and functional limitations. NSAIDs are an important component of managing pain related to KOA but are associated with a significant risk for toxicity. Other therapies with proven effectiveness include intra-articular steroid injections and colchicine. Intra-articular hyaluronans have also shown a statistically significant clinical benefit, although investigators have questioned the clinical importance of the small effect size seen.<sup>3</sup>

The aim of the 2005 Ream Award–winning article was to assess the utility of IM pentosan polysulfate (PPS) in managing KOA. To date, there have been several trials of PPS for the treatment of conditions ranging from chronic pelvic pain and interstitial cystitis to variant Creutzfeldt-Jakob disease. <sup>4–6</sup> Ghosh et al<sup>7</sup> previously conducted an equine study, the results of which suggested beneficial effects of PPS on synovial fluid and articular cartilage. Their 2005 study was conducted to determine whether those findings could be replicated in humans with KOA

Although this small pilot study was not designed to assess efficacy or tolerability, it was well designed and clearly presented. The conclusions were carefully worded and the data were accurately presented. The authors defined a priori the *clinically important improvement* used to define effectiveness based on outcomes relevant to individual patients (ie, improved pain and functional disability). The sample size was calculated based on this information to ensure that the study was powered to detect clinically important outcomes.

Clearly, further studies and assessments are needed to draw conclusions regarding the efficacy or tolerability of PPS for the treatment of KOA. However,

although the study by Ghosh et al<sup>1</sup> was limited by a small sample size and the use of subjective outcomes variables, its design and presentation culminated in its receiving the sixth Charles R. Ream, MD, Award for Excellence.

Judd L. Walson, MD, MPH *Editor-in-Chief* 

## **REFERENCES**

- 1. Ghosh P, Edelman J, March L, Smith M. Effects of pentosan polysulfate in osteoarthritis of the knee: A randomized, double-blind, placebo-controlled pilot study. *Curr Res Ther Clin Exp.* 2005;66:552–571.
- 2. Peat G, McCarney R, Croft P. Knee pain and osteoarthritis in older adults: A review of community burden and current use of primary health care. *Ann Rheum Dis.* 2001; 60:91–97.
- 3. Arrich J, Piribauer F, Mad P, et al. Intra-articular hyaluronic acid for the treatment of osteoarthritis of the knee: Systematic review and meta-analysis. *CMAJ*. 2005;172: 1039–1043.
- 4. Nickel JC, Forrest JB, Tomera K, et al. Pentosan polysulfate sodium therapy for men with chronic pelvic pain syndrome: A multicenter, randomized, placebo controlled study. *J Urol.* 2005;173:1252–1255.
- 5. Nickel JC, Barkin J, Forrest J, et al, for the Elmiron Study Group. Randomized, double-blind, dose-ranging study of pentosan polysulfate sodium for interstitial cystitis. *Urology*. 2005;65:654–658.
- Pincock S. Experimental treatment may show promise for vCJD. Lancet. 2003;362: 1130.
- 7. Fuller CJ, Ghosh P, Barr AR. Plasma and synovial fluid concentrations of calcium pentosan polysulphate achieved in the horse following intramuscular injection. *Equine Vet J.* 2002;34:61–64.