



## Oil it where it squeaks: Evidence, experience, and osteoarthritis therapy

When I was a rheumatology fellow at the University of Pennsylvania in the mid-1980s, a high expectation of success accompanied each intra-articular injection of corticosteroid. Our mantra was “oil it where it squeaks,” based on Professor Joseph Hollander’s report of the efficacy of such injections 30 years earlier. On page 898 in this issue of the *Journal*, Dr. David H. Neustadt reviews some of the evidence and the practical aspects surrounding intra-articular therapy for osteoarthritis of the knee.

Using a regional therapy for a regional pain problem has a satisfying logic. But there is also the paradox of injecting an anti-inflammatory steroid, which can reduce repair mechanisms, into a joint affected by a process that for many years was felt to be degenerative and not inflammatory. While we now know that osteoarthritis involves a low level of inflammation, questions remain as to the efficacy and mechanism of intra-articular therapies in osteoarthritis.

As reviewed by Dr. Neustadt, several controlled trials showed that injected corticosteroids relieve the pain of knee osteoarthritis, and an interesting small study suggested that this benefit was independent of the synovial fluid white cell count (an indication of inflammation). But even more provocative are several controlled studies suggesting that placebo (saline) injection is nearly as effective as active corticosteroid injection. Placebo injections were also strikingly effective in several trials of hyaluronans: the active agents relieved pain, but one well done meta-analysis indicated that the hyaluronans were no more effective than saline injection, although most patients felt significantly better than they did before the injection.

So we are left with a (mostly) shared clinical experience of seeing beneficial effects from intra-articular injections, which has been difficult in controlled trials to distinguish from a striking placebo effect. I suspect many will continue to use intra-articular therapy, often with satisfying but short-term results. Some patients have few other options. Perhaps patient selection or drainage of a significant effusion has enhanced the likelihood of a clinical response, encouraging continued injection therapy. Whatever the reason, since many patients do experience relief, it may indeed pay to “oil where it squeaks.” I just wonder, given our current understanding, how much it matters what oil we use.

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