MÆDICA - a Journal of Clinical Medicine

JOURNAL CLUB

Dupuytren's contracture: a new perspective on treatment

Alexandru BURLACU, MD

Cardiology Department, Emergency University Hospital, Bucharest, Romania

Dupuytren's contracture (also known as "Dupuytren's disease", or "Palmar fibromatosis") is a fixed flexion contracture of the hand where the fingers bend towards the palm and cannot be fully extended. The disease is caused by underlying contractures of the palmar fascia.

The ring finger and little finger are most commonly affected. The contracture progresses slowly and is usually painless. In patients with this condition, the tissues under the skin on the palm of the hand thicken and shorten so that the tendons connected to the fingers cannot move freely.

The palmar aponeurosis becomes hyperplastic and undergoes contracture. Incidence increases after the age of 40; at this age men are affected more often than women.

Since 1831 when Baron Guillaume Dupuytren (Napoleon's renown surgeon) firstly described and named the disease and the technique for treatment, the approach was only surgical.

Surgical management consists of opening the skin over the affected cords and excising (removing) the fibrous tissue. The fingers may then be brought out to length with the help of postoperative therapy.

The authors of this article designed a prospective, randomized, double-blind, placebo-controlled, multicenter study enrolling more than 300 patients. They proposed an alternative for the surgical treatment. Injection of collagenase clostridium histolyticum, an office-based, nonsurgical option, may reduce joint contractures caused by Dupuytren's disease.

The primary metacarpophalangeal or proximal interphalangeal joints of these patients were randomly assigned to receive up to three injections of collagenase clostridium histolyticum or placebo in the pathologic collagen cord at 30-day intervals. A day later, the treated joint was manipulated in an attempt to rupture the cord; if unsuccessful, the process was repeated up to two additional times at 30-day intervals.

The main outcome was a reduction in contracture to 0 to 5 degrees of full extension 30 days after the last injection.

The major endpoint occurred significantly more often in the treated patients versus controls (64% vs. 7%). The range of motion in the joints was significantly improved after injection with collagenase as compared with placebo ($p<0.001$).

Although nearly all collagenase-treated patients had adverse effects (pain, swelling, pruritus), most resolved within 10 days. Three treatment-related serious adverse events were reported: two tendon ruptures and one case of complex regional pain syndrome. No significant changes in flexion or grip strength, no

systemic allergic reactions, and no nerve injuries were observed.

In conclusion, the results of this trial showed that injectable collagenase clostridium histolyticum is an effective nonsurgical treatment option in patients with advanced Dupuytren's disease. The authors concluded that „the study demonstrated the efficacy and safety of this procedure", „thus providing an alternative to surgery". ❑

Comment on a paper:
Hurst LC, Badalamente MA, Hentz VR et al, for the CORD I Study Group – Injectable Collagenase Clostridium Histolyticum for Dupuytren's Contracture, *New England Journal of Medicine* Vol. 361, September 3, 2009; 10:968-975