

# Collagenase Clostridium Histiolyticum in the Treatment of Dupuytren's contracture

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Dupuytren's contracture is a progressive fibroproliferative disorder of palmar aponeurosis. Similar conditions related are Ledderhose disease in plantar fascia, Peyronie's disease in male genitals and knuckle pad syndrome in the dorsal aspects of finger PIP joints. The treatment options of the Dupuytren's disease in the literature have been open procedures such as fasciotomy, fasciectomy or dermofasciectomy with skin transplant. A closed needle fasciotomy has been also used mainly for contractures of MP-joints. None of these treatments are curative. Recurrence rates vary from 0 to 85% depending on definition of the recurrence, severity of the disease and treatment methods (1).

Collagenase clostridium histiolyticum (CCH; Xiaflex Auxillium Pharmaceuticals, Malvern, PA; Xiaflex; Pfizer Limited, Kent, UK) is a FDA (2010) - and European Commission (2011)- approved enzymatic treatment for adult patients with Dupuytren's contracture with palpable cord. It consists of two distinct collagenases (clostridial type I and II) that were shown in vitro to cleave collagen strands into peptide fragments that are rapidly degraded (2). Its efficacy has been proved in the treatment of advanced Dupuytren's contracture in several (level I evidence) clinical trials (3,4). In 30 days after CCH treatment 64% of joints reached fixed flexion contracture of 0-5 degrees (4). The major complications related to CCH injection have been flexor tendon ruptures (0,3%), ligament or pulley rupture (0,1%) (5). Minor complications are swelling, tenderness, hematoma, blood blisters, skin rupture at the injection site, as well as lymphadenopathy and lymphangitis type reaction in the extremity treated. No systematic allergic reactions have been reported so far.

In a recent three-year follow up study recurrence rate after full correction (fixed flexion contracture 0-5

degrees) of Dupuytren's contracture with CCH was 35 % (27% in MP joints and 56% in PIP joints). Medical or surgical re-correction was performed in 7% of these joints with recurrence. After partial correction (>20 degree correction but not to 0-5 degrees) recurrence rate was 50% (38% in MP joints and 62% in PIP joints). No new long-term side effects were reported (6).

CCH treatment has been proved to be safe and efficient method for Dupuytren's contracture with palpable cords with lower recurrence rates in the MP joints than in PIP joints.

## References

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