

5-year results of first-ever randomised clinical trial on treatment in Dupuytren's disease: percutaneous needle fasciotomy versus limited fasciectomy.

*A.L. Van Rijssen, H. ter Linden, P.M.N. Werker*

**PURPOSE:** To compare the long term outcome of percutaneous needle fasciotomy (PNF) and limited fasciectomy (LF) as treatment modalities for Dupuytren's disease in a randomised controlled fashion with 5-year follow-up. Short-term results of PNF and LF had been comparable (Van Rijssen et al *J Hand Surg Am.* 2006 May-Jun;31(5):717-25)

**METHODS:** In between 2002 and 2004, patients with a minimal contracture of 30° in any joint were randomly assigned to the treatment arms. All patients were invited at 6 months, 1 year and then yearly until 5 years postoperatively. We recorded the total passive extension deficit (TPED), patient satisfaction, hand-function recovery, and complication rate until recurrence or extension of the contracture were found (primary endpoints defined as a worsening of TPED of at least 30° compared to the postoperative measurement) or until they were 5 years post treatment.

**RESULTS:** Recently the last patients reached the 5 years mark. 108 patients with 112 hands had reached the primary endpoint or stayed in for 5 years; 60 of these had undergone PNF, 52 LF. In the PNF group, six patients (10%) were lost for follow-up or deceased. In the LF group, 10 patients (19.2%) were lost for follow-up or deceased.

The recurrence rate in the PNF group was 85%. Recurrence occurred after a mean of 2.3yrs. None had an extension at that time. Of the recurrences 9 were treated by LF, 25 again by PNF and 12 patients chose not to undergo secondary treatment. The recurrence rate in the LF group was 23.8%. Recurrences occurred after a mean of 3.7 years. One patient had extension of the disease (2.4%). Of the recurrences 4 were treated by PNF, and the rest (6 patients) chose not to undergo secondary treatment.

The recurrence rate of PNF was statistically higher than of LF ( $p = 0.00$ ). The mean time to recurrence of PNF was much shorter than that of LF and this was also statistically significant ( $p = 0.01$ ).

**CONCLUSIONS:** Recurrences are far more frequent and occur sooner after PNF. Most patients that had undergone PNF were nevertheless still satisfied with the result and chose it again as treatment modality.