Complication rate after open fascietomy versus needle fascietomy in patients with diabetes mellitus.

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Objectives: Dupuytren’s disease is a fibroproliferative disorder of unknown origin causing palmar nodules and flexion contracture of the digits. The treatment of choice is surgical excision of the affected palmar fascia. The rate of postoperative complication is reached up to 17-19%. The purpose of this study is to analyze the functional outcomes and the rate of complications in patients with Dupuytren's and concomitant diabetes mellitus disease who undergoing surgical treatment with needle versus open fascietomy.

Material & Methods: Between 2013-2016 38 patients (25 male- 13 female) with an average age 59 years old (48-69) were operated for Dupuytren’s contracture. 9 patients had diabetes mellitus type 1 and 29 type 2. The second digit was involved in 2 (5.2%) cases, the third digit in 7 cases (18.4%), the fourth digit in 8 cases (21%) and the fifth digit in 10 (26.3%) cases. In 4 (10.5%) cases the contracture affected both middle and ring finger and in 7 (18.4%) cases the ring and little finger. 22 patients were Tubiana type III, and 16 patients type IV. In 18 patients (11 Tubiana III and 7 Tubiana IV) was performed needle fascietomy (group A) and in 20 patients (11 Tubiana III and 9 Tubiana IV), open fascietomy (group B). A short arm splint was applied postoperatively to maintain the hand and fingers in extension. After the edema subsided, the splint was removed and rehabilitation initiated. All patients continued to use the extension splint at night for two more months.

Results: The mean follow-up period was 28.2 months (range 14 to 38 ). In group A 9 patients (50%) had excellent results, 6 (33.3%) had good results and 3 (16.7%) had poor results. Mean Quick DASH score for this group at the final follow-up was 6.8. Complications rate was: 2 cases with digital nerve injury and 1 case with neuroma, 3 cases with hematoma and 2 cases with recurrence. In group B 11 hands (55%) had excellent results, 5 (25%) had good results and 4 (20%) cases had poor results. Mean Quick DASH score for this group at the final follow-up was 4.5. Among the complications: 1 case with chronic regional pain syndrome, 2 cases with hematoma, 3 cases with infection, 1 case with recurrence.

Conclusion: Dupuytren’s disease appears in patients with diabetes mellitus in 25%. The contracture of the digits causes disability frequently in manual worker especially in late stage of the disease. Percutaneous needle fascietomy is a minimally invasive treatment modality with low rate of complications versus to open fascietomy especially in patients with diabetes mellitus.

Bibliography