Arthroscopical Arthrolysis in Stiff Big Toe: our experience

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My disclosure is in the Final AOFAS Mobile App.
I have no potential conflicts with this presentation.
Introduction

The incidence of the metatarso-phalangeal joint arthrofibrosis is increasing as result of the increment of biomechanical and structural anomalies of foot support. The current surgical indication is given to patients with high functional demands in the first and second degree stiff and painful big toe or in third and fourth degree stiff big toe. The classically treatment is the arthrotomical arthrolysis, associated or not with cheilectomy by dorso-medial access.
Recently some Authors have described this procedure by arthroscopical approach: in these cases the arthrolysis is conducted through the dorso-medial and dorso-laterale portals, back-side to extensor hallucis longus, using an arthroscope to 2.7 mm x 30° degrees and a minishaver 2.4 mm. Postoperative rehabilitation protocol consists in an early physiotherapy, starting from the second day after surgery and provides the use of a stiff-soled shoe for the first 15 days, then converted into a sport shoe for additional 20 days. Seriated controls take place generally after 1, 3, 6 and 12 months after surgery.
In our Institute from January 2011 to June 2013 we have treated with arthroscopical arthrolysis twenty-five rigid big toes. The number of patients was nineteen: thirteen females, in six of them the pathology was bilateral, and six males (the mean of age was 58.31 years ± 8.24, range 52-67). Patients were assessed according to Hallux-metatarsophalangeal-interphalangeal scale by AOFAS in the early post-operative, one week after surgery, then one, three and six months after surgery.
In our patients we have seen an overall reduction of pain already in the first post-operative period in 90%, reaching 95% to a seventh days and 100% to one month after surgery with an excellent recovery of function of the first toe. The mean of Hallux-metatarsophalangeal-interphalangeal scale value was: 45.21 ± 12.1 in the preoperative time, 82.23 ± 8.02 in the immediately (after 12 hours) postoperative time, 91.24 ± 5.24 after one month, 95.71 ± 5.10 after three months and 96.90 ± 1.37 after six months. We did not have infectious complications or recurrence of painful symptoms.
The results in terms of functionality and pain reduction associated with the very restricted operative time have induced patients with early symptoms of the contralateral side to request the same operation although they don’t present our inclusion criteria.

Preoperative *range of motion.*

Postoperative range of motion
In order of such mini-invasive surgical procedure and results obtained so far we decided to extend surgical indication to grade II hard toes, trusting in a higher number of cases corroborating this excellent result.
REFERENCES

1. Lui TH. Arthroscopic release of first metatarsophalangeal arthrofibrosis. 2006 Arthroscopy, Aug; 22(8):906.e1-4