INTRODUCTION

Metacarpophalangeal (MP) hyperextension is directly related to shortening of thumb height seems to adversely affect the final result

No consensus on the best treatment to manage MP hyperextension

Objectives:

- Assess the correction of MP hyperextension instability using TMP versus TL in the case of thumb base osteoarthritis
- Evaluate the functional impact of postoperative MP hyperextension

METHODS

Monocentric, multi-operator series (nov 2013- dec 15)
69 patients (41 TMP et 28 TL)
Mean age of 63,2 years (42-79)

Divided into 4 sub-groups according to preoperative MP hyperextension

Sub-group 1: HE < 10°
Sub-group 2: HE 10-30°
Sub-group 3: HE > 30°

Sus-group Total HyperExtension (THE)

Clinical (pain, active MP motion, dynamic MP hyperextension using pinch®, grip and pinch strength), functional (QuickDASH score) and radiographic (thumb height) evaluation

RESULTS

Mean follow up of 20 months (6-38)
Greater decrease of MP hyperextension in TMP group than TL group (89% versus 47%, p<0,013)

DISCUSSION

The TMP sub-groups with MP hyperextension > 30° et THE (>10°) showed a significantly greater reduction of MP hyperextension than the subgroups of the TL group

Dynamic MP hyperextension was statisitically

- Less frequent in TMP groups than TL group (19% versus 61%)
- Lower in the TMP group than in the TL group (4,0° versus 17,9°)

All subgroups with MP hyperextension showed significant greater pinch strength with TMP than the TL

Patients with postoperative MP hyperextension MP have a significant lower grip and pinch strength and lower thumb height than patients without MP hyperextension

By restoring the thumb height, TMP provides better stabilization of MCP hyperextension than TL

TMP may be recommended in patients with MP hyperextension