Treatment of Severe Hallux Valgus Deformity in Rheumatoid Arthritis with 1st MTP Joint Fusion combined with Proximal Chevron Metatarsal Osteotomy

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NO CONFLICT TO DISCLOSE

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

- A severe hallux valgus in RA patient is usually treated with the 1st MTP fusion, since the high success rate with low percentage of recurrence leads to higher patient satisfaction.
- In some cases, the large 1st inter-metatarsal angle is not decreased after the fusion, leading to persistent bunion pain.
- We tried to solve this problem by performing the 1st MTP fusion and the 1st proximal MT osteotomy in one stage.
- We report our surgical technique with the outcome analysis of the patients.
MATERIALS & METHODS

Demographics
6 cases (M : F = 0 : 6)
Age : 42 ~ 72Y (mean 51.3Y)
F/U : 12 ~ 37M (mean 25M)

Inclusion criteria
RA hallux valgus (IMA > 18°)

Clinically
AOFAS MP-IP scale
Patients’ satisfaction
PO complication

Radiographically
Union of fusion / osteotomy
Op. Technique

- Single curvilinear skin incision
- MTP fusion: fixed with threaded S-pin
- MT osteotomy: fixed with K-wires
- Bone graft into the PCMO gap
- PO short leg splint for 4W

→ followed by hard-sole shoe for 6W
RESULTS

Clinically

• AOFAS: 51.2 → 84.3
• All patients were satisfied.
• No deep wound problem

Radiographically

• IMA: 20.5 → 6.3
• Fusion/osteotomy: all united
Case

- F/55, RA for 20Y

PO 1Y
DISCUSSION

• Arthrodesis of the MTP 1 joint is widely accepted as the gold standard for end-stage arthritis.

• Sung (JFAS 2010)
  – MTP 1 joint arthrodesis reduces the first inter-metatarsal angle up to 6° in case of arthritic joint with hallux valgus.
  – An additional metatarsal osteotomy is not necessary for mild and moderate hallux valgus deformities.

• However, the effect of fusion on the IMA is not consistent in moderate to severe HV deformity.
DISCUSSION

• Our technique of the combined MTP 1 fusion and the 1st proximal MT osteotomy can be a solution for the severe rheumatoid hallux valgus deformity with a large inter-metatarsal angle.
  – Patients’ satisfaction ↑
  – No deep wound problem
  – No nonunion of fusion or osteotomy
REFERENCES

