RETROSPECTIVE ANALYSIS OF 5 YEARS RESULTS OF FIRST METATARSOPHALANGEAL JOINT ARTHROPLASTY, SINGLE SURGEON SERIES

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No conflict to Disclose

Retrospective analysis of 5 years results of first metatarsophalangeal joint arthroplasty, Single surgeon series

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We have no potential conflict with this presentation
First Metatarsophalangeal joint (MTPJ) osteoarthritis is a common forefoot disease.

It leads to joint surface destruction and erosions limiting function and causing pain.

The disease can be classified to mobile and non mobile or traumatic and atraumatic disease.

The gold standard for treatment of stage III and IV remains MTPJ arthrodesis.

In this case series we demonstrate MTPJ arthroplasty in mobile MTPJ with stable first interphalangeal joint (IPJ) can achieve short and medium-term results that are comparable to arthrodesis with high satisfaction rate.
First MTPJ Fusion is an option in the management of mobile arthritis.

Mobile arthritis does not gain hypermobility in the IPJ as a rule.

Fusing the first MTPJ in mobile arthritis can lead to loss of the third rocker i.e. Spearing gait of the first ray.

This leads to lateral border walk

As result they develop compensatory tendinopathy.
REQUIREMENT PRIOR TO THE PROCEDURE

- Grade 3 and 4 arthritis.
- Mobile arthritis.
- Greater than 30 degrees dorsiflexion.
- No IP joint hypermobility.
- All elements of Hallux valgus should be corrected prior to the replacement.

TYPES OF REPLACEMENT PERFORMED

- 5 were Hemicap with EDB muscle/fascia on the proximal phalanx side.
  - This was used initially as the proximal phalanx component was not available in Ireland at that time.
- Total Toe replacement.
- Implant used Hemicap form Arthrosurface
53 patients underwent first MTPJ replacement.

- Average age 56 years (Range 48-72)
- 8 Males and 45 females
- 2 patients were bilateral.
- 7 patients were conversion from arthrodesis to replacement.
  - 3 male and 4 female
  - 2 were due to failed union.
  - 5 were fusion in mobile arthritis.

5 YEARS EXPERIENCE
RESULTS

- AOFAS hallux score at the end of the follow up:
  - 41 patients scored average 88.
  - 10 patients had average of 78.
  - 2 patients were satisfied, but would not have the procedure again (score 68)
    - One had revision to total toe replacement based on SPECT CT showing increased uptake on the PP side. His current score is 78.
    - One did not have further surgery
  - 10 patients reported mild pain on max distance walking

- All patients had over 35 degrees of dorsiflexion.
- The revision group had average of 30 degrees dorsiflexion.
- All patients had normal first ray alignment except 2.
  - The two patients required Lapidus procedure to correct the hallux valgus.
TAKE DOWN OF FUSION
FUSION TO HEMICAP EDB MUSCLE/ FASCIA
PRIMARY HEMICAP
In short to medium-term follow up, the first MTP joint arthroplasty with Arthrosurface® implant and EDB graft provides an excellent functional outcome in the management of moderate to severe OA. In some selected cases this can be an option for treatment of patient with failed arthrodesis or patients requiring the reversal of the arthrodesis due to other issues.
REFERENCES


