Our Foot & Ankle Registry

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Disclaim and Notification

‘Our Foot & Ankle Registry’

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My disclosure is in the Final AOFAS Program Book.

I have no potential conflicts with this presentation.
Introduction

- Supramalleolar osteotomy and total ankle replacement have gained in popularity for the treatment of advanced ankle osteoarthritis
- However, little data are available to evaluate the effectiveness and success of these treatment modalities at long-term
- Only some national registries are known with limited clinical data [5-10]
- We started in 2000 with prospective documentation by surgeon’s independent research associates [1-4]

PURPOSE of this work is:

- To provide an update of collected data, in particular to analyze changes of our treatment modalities and their success
Materials and Methods

- Prospective data collection since 2000
- All patients undergoing foot surgery including
  - Total Ankle Replacement (TAR)
  - Supramalleolar Osteotomy (SMOT)
- Standardized data assessment including
  - Patients’ foot history
  - Clinical examination (ROM, Alignment, Stability, Walking Pattern)
  - Clinical scores & questionnaires (AOFAS, JSSF, FAOS, VAS Pain)
  - Surgery details & additional procedures
  - 4 radiographs (ankle ap, foot lateral, foot ap, saltzman view)
- Data collection from independent research associates
Results
Patient Cohort

1434 ankles in 1312 patients (♂ 745, ♀ 567)
- TAR: 1044 ankles
- SMOT: 390 ankles

BMI:
- $\bar{\text{BMI}}: 27 \pm 4.4$ [15 to 56]

Age at surgery:
- TAR: $\bar{\text{Age}}: 60y \pm 12$ [20 to 90]
- SMOT: $\bar{\text{Age}}: 47y \pm 14$ [14 to 83]
Results

Patients Total Ankle Replacement

- **Etiology**
  - primary OA: 78%
  - posttraumatic OA: 10%
  - systemic OA: 10%
  - others: 2%

- **Previous Foot Surgery**
  - No Foot Surgery: 283, 27%
  - Previous Surgery:
    - Osteosynthesis: 759, 73%
    - Tendon & Ligament Procedures: 415, 40%
    - Hind- & Midfoot Arthrodesis: 154, 15%
    - Others: 132, 13%

- **Gender Distribution**
  - Male: 47%
  - Female: 40%
Results

Patients Supramalleolar Osteotomy

Survival Statistics SMOT

- 28 SMOT ankles (7%) progressed to endstage osteoarthritis and were converted
  - to ankle prosthesis (21)
  - or fusion (3)

- Time-Interval to endpoint:
  - 0-1y: 10 patients
  - 1-2y: 9 patients
  - 2-5y: 5 patients
  - >5y: 4 patients
Results

Clinical Scores & Outcome

AOFAS Hindfoot Score:
- TAR: from 43 preOP to 74 postOP
- SMOT: from 53 preOP to 73 postOP
  - No significant difference between varus & valgus deformity

Survival Statistics TAR
- At 5 years: 94%
- At 10 years: 84%
Discussion & Conclusion

- This first comprehensive foot & ankle registry shows a trend towards joint preserving methods in advanced stage of osteoarthritis in the last years
- SMOT and TAR are successful over time with acceptable survivorships at long-term
- The strength of this hospital-based registry is the homogeneity regarding implants, surgical techniques, and surgeon- and environment-related biasing factors
- The ability to collect data more extensively enables for more in-depth analysis

Conclusion:
- Our documentation is essential for the comprehension for the treatment of osteoarthritic ankles and enables us to evaluate questions identified in larger registries more clearly
References


