ARTHRODESIS AND ANKLE REPLACEMENT: ALTERNATIVES OR DIFFERENT INDICATIONS?

Giannini S, Romagnoli M, Cavallo M, Ruffilli A, Leardini A
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My disclosure is in the Final AOFAS Mobile App.

I have no potential conflicts with this presentation.
Intermediate and Long-Term Outcomes of Total Ankle Arthroplasty and Ankle Arthrodesis. A Systematic Review of the Literature

S.L. Haddad, J.C. Coetzee, R. Estok, K. Fahrbach, D. Banel and L. Nalysnyk

852 TAR
2-9 years f.u. (mean 4.7)
Mean age 58 years
Rheumatoid 39%
78.2 AOFAS
Plantar 15.2° Dorsi 11.2°
22% e 23% failure at 5 and 10 yrs
7% revisions

1262 AA
2-23 years f.u (mean 5.3)
Mean age 49.2 years
Post-traumatic 57%
75.6 AOFAS
Plantar 16.5° Dorsi 0.8°
10 % nonunions
9% revisions
Comparison of Reoperation Rates Following Ankle Arthrodesis and Total Ankle Arthroplasty

Nelson F. SooHoo, David S. Zingmond and Clifford Y. Ko

480 TAR
Mean age 59 years

Short term major revision (at 90 days):
Odds ratio Tar/AA 3.65

Long term major revision (at 5 years):
Odds ratio Tar/AA 1.93

23% revision surgery

4705 AA
Mean age 55 years

Long term subtalar fusion:
Odds ratio Tar/AA 0.28

11% revision surgery
ANKLE ARTHRODESIS
INDICATIONS & CONTRAINDICATIONS

INDICATIONS

• Primary or post-traumatic arthritis in patients
• Any age

CONTRAINDICATIONS

• Arthritis in nearest foot joints
• Arthrodesis in nearest foot joints
ANKLE ARTHRODESIS
MATERIALS AND RESULTS

• 130 patients

• Average age : 42.8

• Average follow-up: 3.2 years

• Good AOFAS score

• Failure rates: 3.4 %
ANKLE ARTHRODESIS

CLINICAL CASE

M

3

4

years

0

1

6
TAR
INDICATIONS

- Primary or post-traumatic arthritis in patients, over 50 years
- Under 50 years with residual ROM less than 20° in other foot joints
- All cases rejecting arthrodesis
- Rheumatoid arthritis also in young patients
TAR CONTRAINDICATIONS

Absolute

• Heavy deformities
• Significant osteoporosis or osteonecrosis, particularly of the talus
• Severe vascular pathologies
• Severe neurological disorders
• Infections in progress

Relative (need to be treated before or during TAR)

• Capsulo-ligamentous instability
• Foot deformities affecting the correct stance
• Severe homolateral hip and knee deformities
150 patients
Average f.u. $\rightarrow$ 3.2 years
Mean age $\rightarrow$ 62.9 years

- Good AOFAS score
- Increased ROM
- Revision surgery (overall): 8.6%
- Arthrodesis: 0.9%
CLINICAL CASE

F 65 years
OA II

10 years f.u.

F 65 years
OA II

19°

17°
DISCUSSION

- Results were satisfactory in both groups
- Low failure rate and good patients' satisfaction at mid-long term follow up
- Ankle fusion and ankle replacement are generally to be considered in different types of patients
- Grey zone (could be alternatives): older patients with good ROM and no arthritis nearest joints of the foot, no neurological disorders or infections.