

## Supplementary article data

# Total ankle replacement for posttraumatic arthritis

## Similar outcome in postfracture and instability arthritis: a comparison of 90 ankles

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Table 3. Life table: survival of the 90 ankles with a revision or salvage fusion as endpoint

Time interval, months	No. entering interval	Postfracture OA			Survival rate (%) (95% CI)	No. entering interval	Instability OA			Survival rate (%) (95% CI)	p-value
		No. with-drawn	No. of events	No. with-drawn			No. of events				
0–12	50	0	0	100	40	0	2	95	88–100	0.1	
12–24	50	1	1	98	94–100	38	0	3	88	77–98	0.05
24–36	48	4	0	98	94–100	35	5	0	88	77–98	0.05
36–48	44	12	0	98	94–100	30	4	1	84	73–96	0.02
48–60	32	6	2	91	81–100	25	6	0	84	73–96	0.2
60–72	24	3	1	87	74–99	19	6	1	79	63–94	0.2

Table 4. Life table: survival of the 90 patients with revision, salvage fusion or reoperation as endpoint

Time interval, months	No. entering interval	Postfracture OA			Survival rate (%) (95% CI)	No. entering interval	Instability OA			Survival rate (%) (95% CI)	p-value
		No. with-drawn	No. of events	No. with-drawn			No. of events				
0–12	50	0	3	94	87–100	40	0	6	85	74–96	0.2
12–24	47	1	1	92	84–100	34	0	4	75	62–88	0.03
24–36	45	3	2	88	79–97	30	3	1	72	58–86	0.06
36–48	40	11	1	86	76–95	26	4	1	69	55–84	0.06
48–60	28	5	3	75	60–89	21	5	0	69	55–84	0.2
60–72	20	2	1	71	55–86	16	6	2	58	39–77	0.2

Table 5. Additional intraoperative procedures, perioperative complications, and subsequent surgical procedures without implant exchange

	Postfracture OA (n = 50)	Instability OA (n = 40)	Total	p-value <sup>a</sup>
Additional intraoperative procedures				
Achilles tendon lengthening	12	4	16	0.08
Medial malleolar osteotomy	1	24	25	< 0.001
Perioperative complications				
Medial malleolar fracture	4	4	8	0.5
Lateral malleolar fracture	1	0	1	0.6
Distal tibial fracture	0	1	1	0.4
Talar fracture	1	0	1	0.6
Delayed wound healing	4	3	7	0.6
Deep infection	0	1	1	0.4
Neuropathy	2	2	4	0.6
Subsequent surgery				
Arthroscopic debridement	3	3	6	0.6
Open debridement for ossifications	4	0	4	0.09
Cyst grafting + bearing exchange	4	2	6	0.5
Medial malleolar non-union repair	1	1	2	0.7
Removal K-wires/screws <sup>b</sup>	0	5	5	0.02

<sup>a</sup> < 0.05 is considered significant using Fisher's Exact tests

<sup>b</sup> Item not included for survival analysis.

Table 6. Ankle scores and ROM at different time points. Values are mean (range) unless otherwise specified

	Postfracture OA	Instability OA	p-value <sup>a</sup>
Number of patients			
Baseline	50	40	
1 year	50	38	
Latest follow-up	43	29	
AOFAS ankle-hindfoot scale (median, IQR)			
Baseline			
Total	40 (33–54)	31 (25–42)	0.001
Pain	0 (0–20)	0 (0–0)	0.3
Function	28 (23–30)	25 (23–30)	0.2
Alignment	10 (10–10)	0 (0–10)	< 0.001
1 year			
Total	83 (73–94)	88 (78–95)	0.2
Pain	30 (20–40)	30 (30–40)	0.1
Function	43 (37–47)	44 (38–47)	0.6
Alignment	10 (10–10)	10 (10–10)	0.7
Latest follow-up			
Total	86 (79–97)	88 (81–97)	0.8
Pain	40 (30–40)	30 (30–40)	0.4
Function	42 (38–47)	44 (41–58)	0.2
Alignment	10 (10–10)	10 (10–10)	0.2
Kofoed ankle score (median, IQR)			
Baseline	38 (33–43)	36 (24–40)	0.04
1 year	78 (70–94)	84 (74–93)	0.3
Latest follow-up	84 (77–95)	84 (76–93)	0.9
Range of motion (ROM, degrees)			
Baseline			
Total ROM	30.5 (5–60)	35.7 (0–70)	0.07
Dorsiflexion	2.8 (–20–15)	6.8 (–5–20)	0.004
Plantarflexion	27.7 (5–50)	28.9 (0–50)	0.6
1 year			
Total ROM	39.6 (20–57)	41.2 (20–60)	0.5
Dorsiflexion	8.1 (–5–15)	9.3 (0–15)	0.3
Plantarflexion	31.5 (15–45)	31.8 (15–45)	0.8
Latest follow-up			
Total ROM	35.7 (10–55)	41.8 (25–57)	0.01
Dorsiflexion	6.7 (–5–15)	8.6 (0–15)	0.1
Plantarflexion	29.0 (15–45)	33.2 (20–45)	0.03

<sup>a</sup> < 0.05 is considered significant.

AOFAS: American Orthopaedic Foot and Ankle Society

Table 7. Patient-reported outcome measures (at latest follow-up). Values are median (IQR)

	Postfracture OA (n=43)	Instability OA (n=29)	p-value <sup>a</sup>
FAAM			
ADL	79 (64–94)	73 (62–91)	0.5
sports	31 (17–50)	28 (9–50)	0.7
SF-36			
Physical Functioning	75 (55–90)	70 (53–90)	0.4
Role Physical	100 (25–100)	75 (13–100)	0.7
Bodily Pain	62 (51–84)	62 (41–82)	0.2
Social Functioning	88 (63–100)	88 (56–100)	0.3
Mental Health	84 (76–96)	76 (58–96)	0.2
Role Emotional	100 (100–100)	100 (50–100)	0.07
Vitality	75 (60–90)	75 (55–85)	0.4
General Health	72 (57–87)	72 (57–82)	0.7
PCS	45 (39–54)	45 (35–52)	0.4
MCS	57 (52–60)	54 (41–59)	0.1

<sup>a</sup> < 0.05 is considered significant.

FAAM: Foot and Ankle Ability Measure,

PCS: Physical Component Score

MCS: Mental Component Score