Non-Operative Management for Osteochondral Lesions of the Tibial Plafond:
A 2-Year Prospective Follow-Up Study

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Disclosure

QGH Rikken reports editorial team membership (JEO Journal) and editorial board membership (Arthroscopy journal).

J Dahmen reports editorial team membership (CARTILAGE journal)

EVIDENCE-BASED SYSTEMATIC REVIEWS

Surgical Treatment of Osteochondral Lesions of the Tibial Plafond
A Systematic Review and Meta-Analysis

JB&JS REVIEWS

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Rare:

1 OLTP : 15-25 OLT

Cartilage characteristics

Treatment lacks EBM

No algorithm/consensus

No non-operative Tx outcomes

Aims

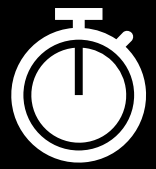
Primary Aim
to assess the prospective clinical outcomes of patients who underwent non-operative management for an OLTP at 2-years follow-up.

Secondary Aim
to assess the radiological outcomes, conversion rate, and any complications.

Non-operative management

1 or more of the following modalities during the study period:

Supervised Neglect



Weight-loss advice

Insoles or
shoe modifications

Injection (HA/CS)

Physical therapy

Patient Characteristics

18 Patients 67% male

Age 36 ± 11 Years

BMI 24 ± 4

Trauma 70%

Prior Surgery

Prior Ankle Surgery*, *N (%)*	
- Ankles	9 (50%)
- Total no. prior procedures	20
Detailed, N (% of total no. prior surgeries)	
- External fixation ankle fracture	2 (10%)
- ORIF ankle fracture	4 (20%)
- Hardware removal	5 (25%)
- Ankle arthroscopy	
o BMS OLTP	3 (15%)
o BMS OLT	1 (5%)
o Diagnostic arthroscopy	2 (10%)
o Removal bony impingement	1 (5%)
- OATS OLT (open)	1 (5%)
- Malunion correction calcaneus	1 (5%)

Treatment Characteristics

Number of Treatments	2.3 ± 1.1
Specified	*total no.*
Physical Therapy	13 (31%)
Supervised Neglect	5 (12%)
Weight-loss Advice	2 (5%)
Insole	9 (21%)
Brace	4 (10%)
Injection (HA)	9 (21%)

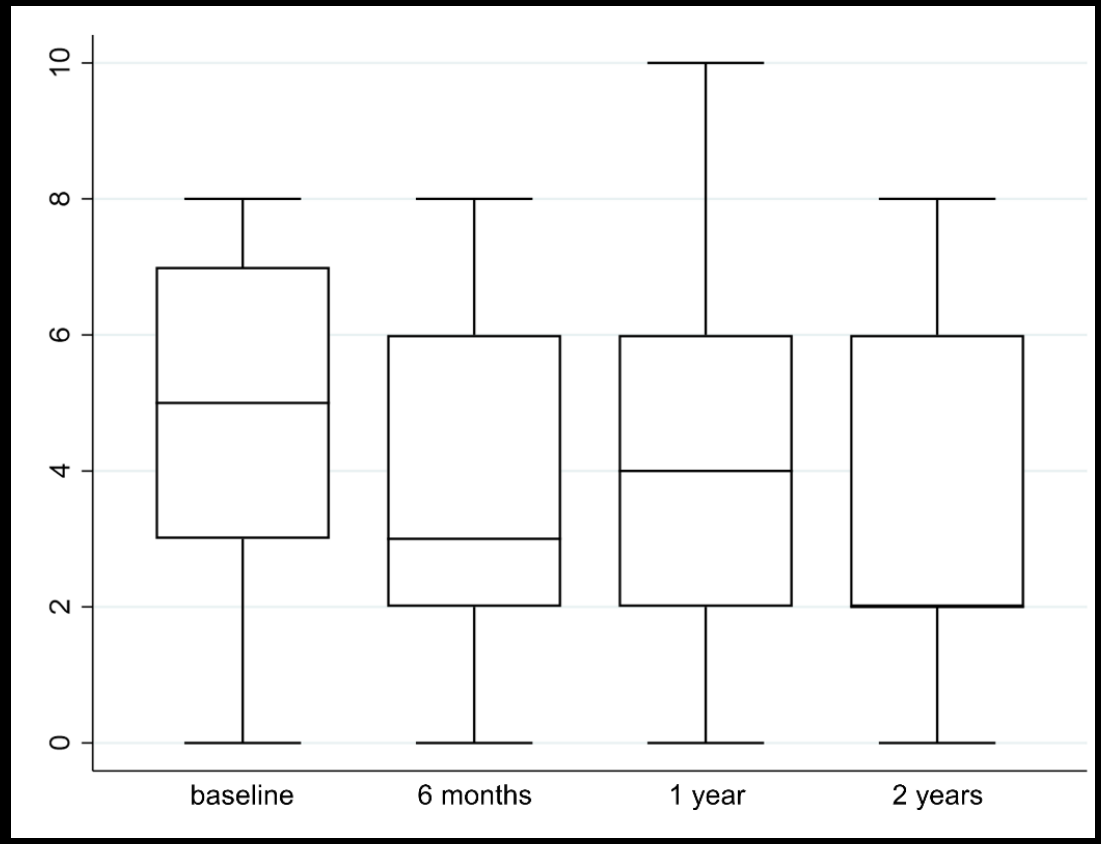
Concomitant Diagnosis:

Concomitant diagnosis*, *N (%)*	
- Ankles	10 (56%)
- Total no. concomitant diagnosis	13
Specified (% by no. concomitant diagnosis)	
- Anterior bony impingement	6 (45%)
- Anterior soft-tissue impingement	1 (8%)
- Sinus tarsi syndrome	2 (15%)
- Hardware irritation	1 (8%)
- Lateral ankle instability	1 (8%)
- Posterior tibial tendon tendinitis	1 (8%)
- Malunion distal fibula	1 (8%)

Primary Outcome

NRS during Walking (median)

Pre-op	5 (IQR: 3 – 7)
Post-op	2 (IQR: 1 – 6)
	P= 0.06
Change	2 (IQR: 0 – 3) points improvement

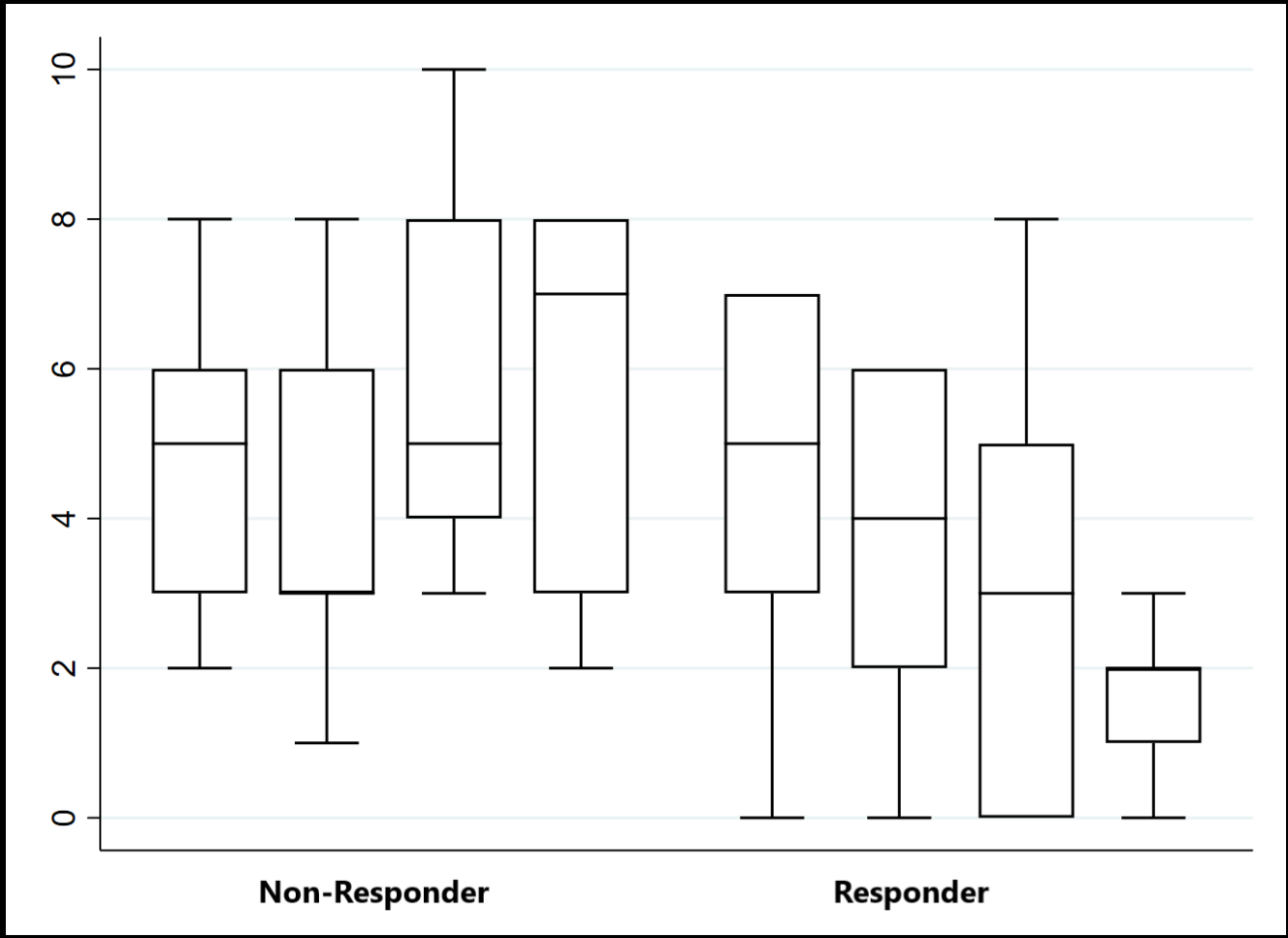


Primary Outcome

Responders (≥ 2 points improvement and no surg) vs. **Non-responders**

Responders: 10 (56%)

No difference in baseline characteristics between groups



Radiological Follow-up

1.8 (range: 1 – 2) years follow-up CT for 13 ankles

Lesion volume:

Baseline	226 (IQR: 79 – 890) mm3	P=0.2
Follow-up	219 (IQR: 75 – 552) mm3	

Descriptive Lesion Healing:

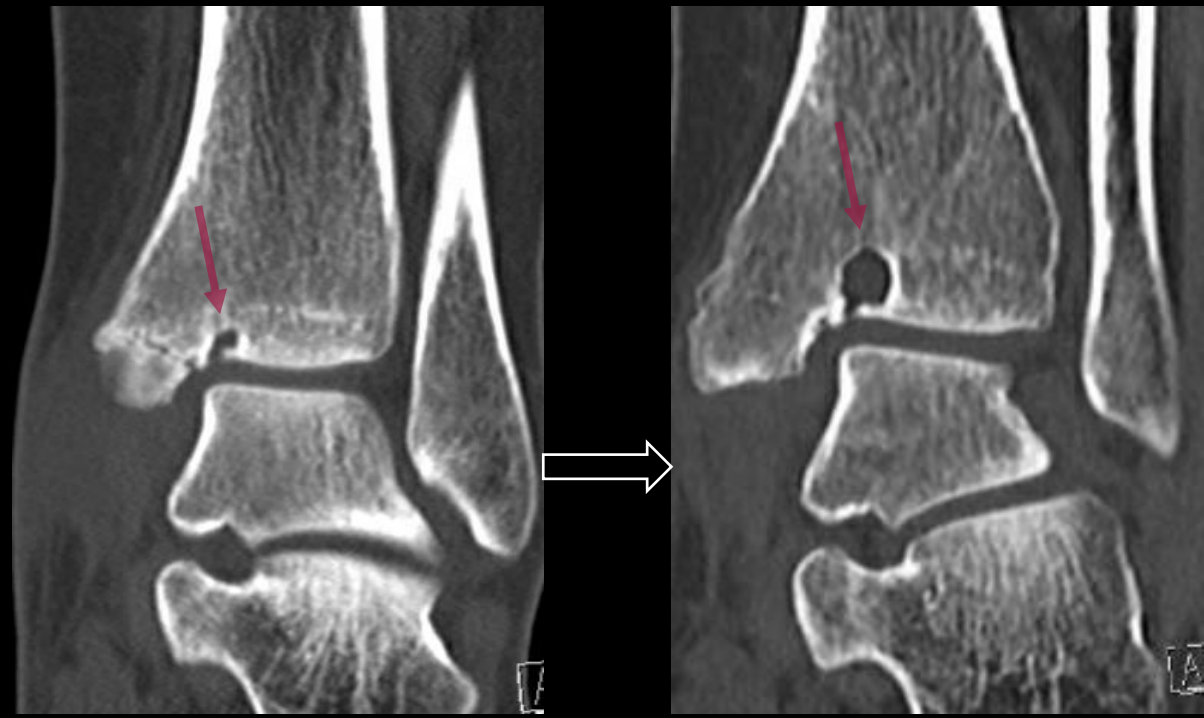
Healing (>30% infill or size decrease)	6 (46%)
Stable	4 (31%)
Deterioration	3 (23%)

ICC: fair to good

Radiological Follow-up

Lesion Healing:

Deterioration:



Adverse Outcomes

Conversion to surgery (any type):
1 patient underwent osteotomy and filling at 7 months follow-up

→ Satisfactory results in ADL, returned to tennis

Adverse events:
none

Take To Work

Non-operative management for OLTP is safe but seems to yield marginal improvements in pain

Lesion size seems to remain stable over time

A minimum 9 out of 10 patients return to work and sports at any level