



Clinical Outcomes Following Ultrasound-Guided ChondroFiller Injection for Ankle Cartilage Defects

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AIM

To evaluate clinical and imaging outcomes following ultrasound-guided ChondroFiller injection for symptomatic ankle cartilage defects.

BACKGROUND

Cartilage defects commonly follow ankle sprain, fracture or repetitive microtrauma. Because articular cartilage has limited intrinsic healing capacity, these lesions can cause persistent pain, swelling and functional limitation and may progress to early post-traumatic osteoarthritis. Existing restorative procedures require arthroscopic or open surgery and may involve graft harvest or staged treatment. ChondroFiller is an absorbable, cell-free type I collagen gel that can be delivered by ultrasound-guided injection: it sets in situ within the defect and provides a three-dimensional scaffold to support endogenous repair, without arthroscopy or incision.

1 METHODS

Single-centre retrospective cohort of 30 ankles in 29 adults treated with ultrasound-guided ChondroFiller injection over 24 months. Eligibility required an MRI-confirmed focal talar dome defect, persistent symptoms despite at least 3 months of conservative management and at least 12 months of follow-up.

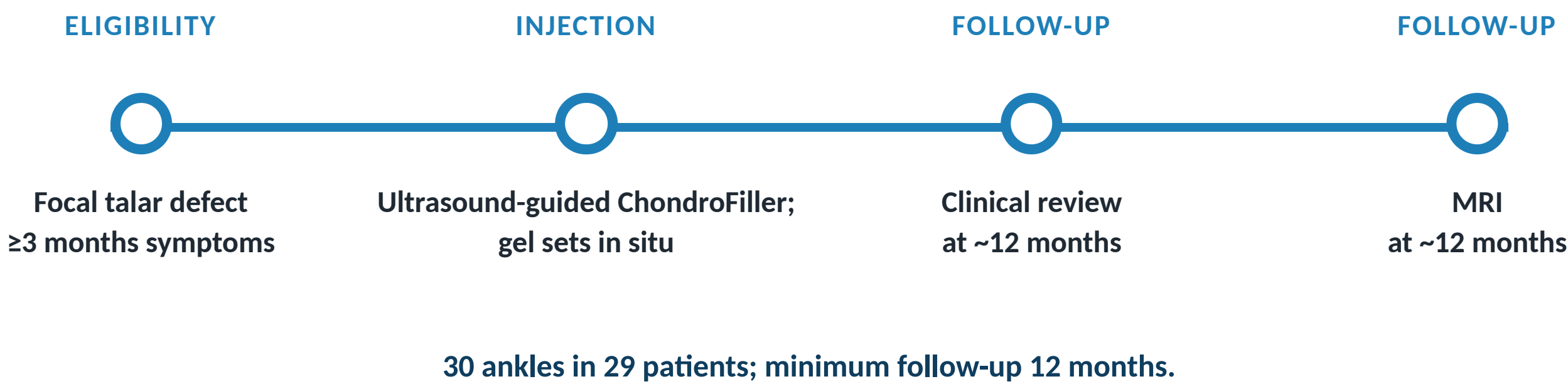
PRIMARY OUTCOME & ANALYSIS

Primary outcomes were FAOS and activity VAS. Secondary outcomes were satisfaction, return to activity, MRI defect fill, complications and revision. Paired statistical tests compared pre-injection and final-review scores.

Design, participants & outcomes

DESIGN	Single-centre retrospective cohort over 24 months; 30 ankles in 29 adults.
ELIGIBILITY	MRI-confirmed focal talar dome defect; symptoms despite ≥3 months of conservative management; ≥12 months follow-up.
PROCEDURE	Ultrasound-guided injection of ChondroFiller into the ankle joint, targeted to the talar dome defect; the collagen gel sets in situ. No arthroscopy, debridement or incision.
OUTCOMES	FAOS, activity VAS, satisfaction, return to activity, follow-up MRI, complications and revision.

Study pathway



Ultrasound-Guided ChondroFiller Injection



Needle delivery of ChondroFiller into the focal talar dome defect under ultrasound guidance; the gel sets in situ to fill the defect.

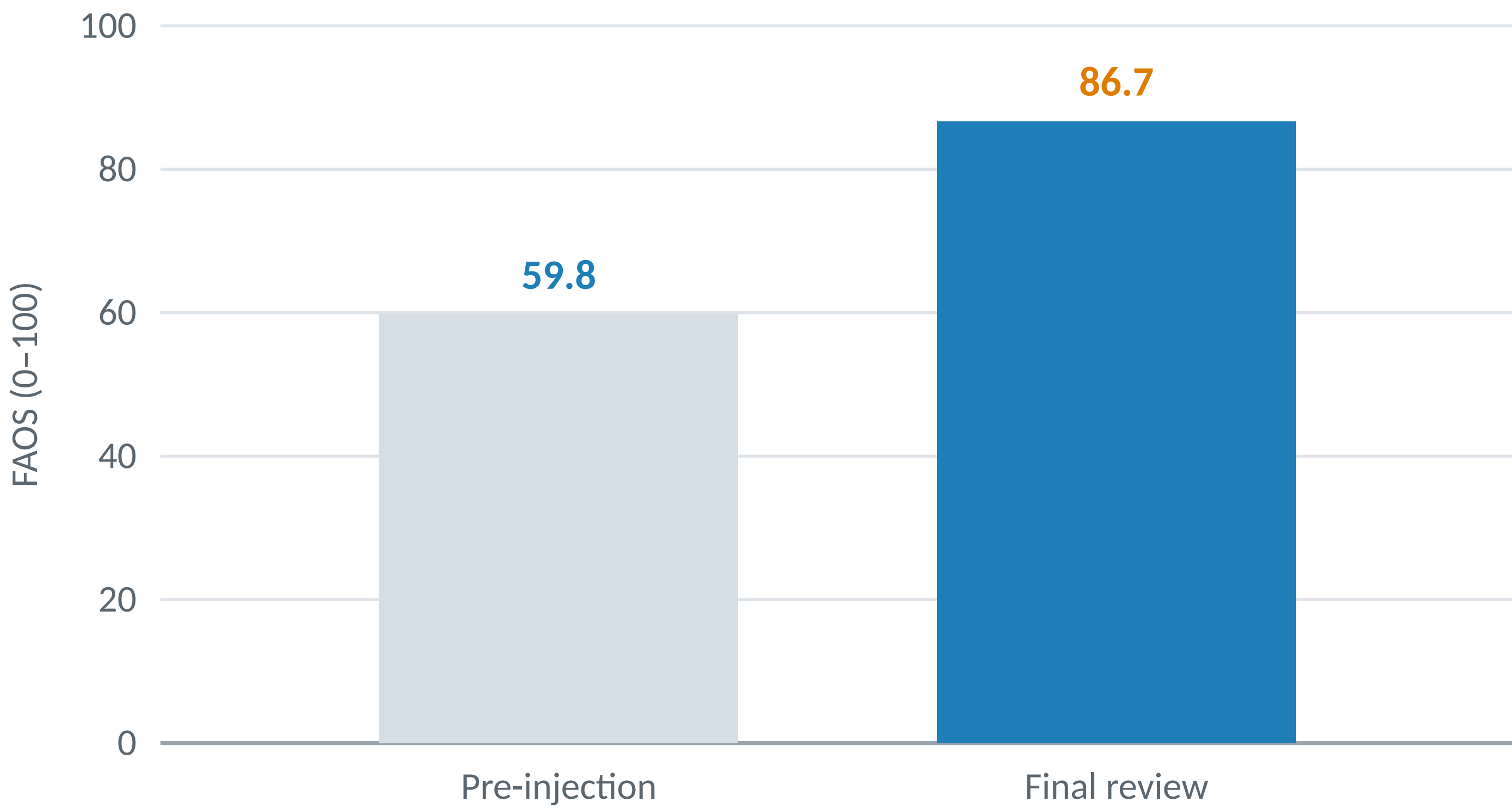
Explanatory clinical illustration; not a participant image or MRI outcome.



Sagittal MRI of a focal talar dome defect (a, b).

2 RESULTS & INTERPRETATION

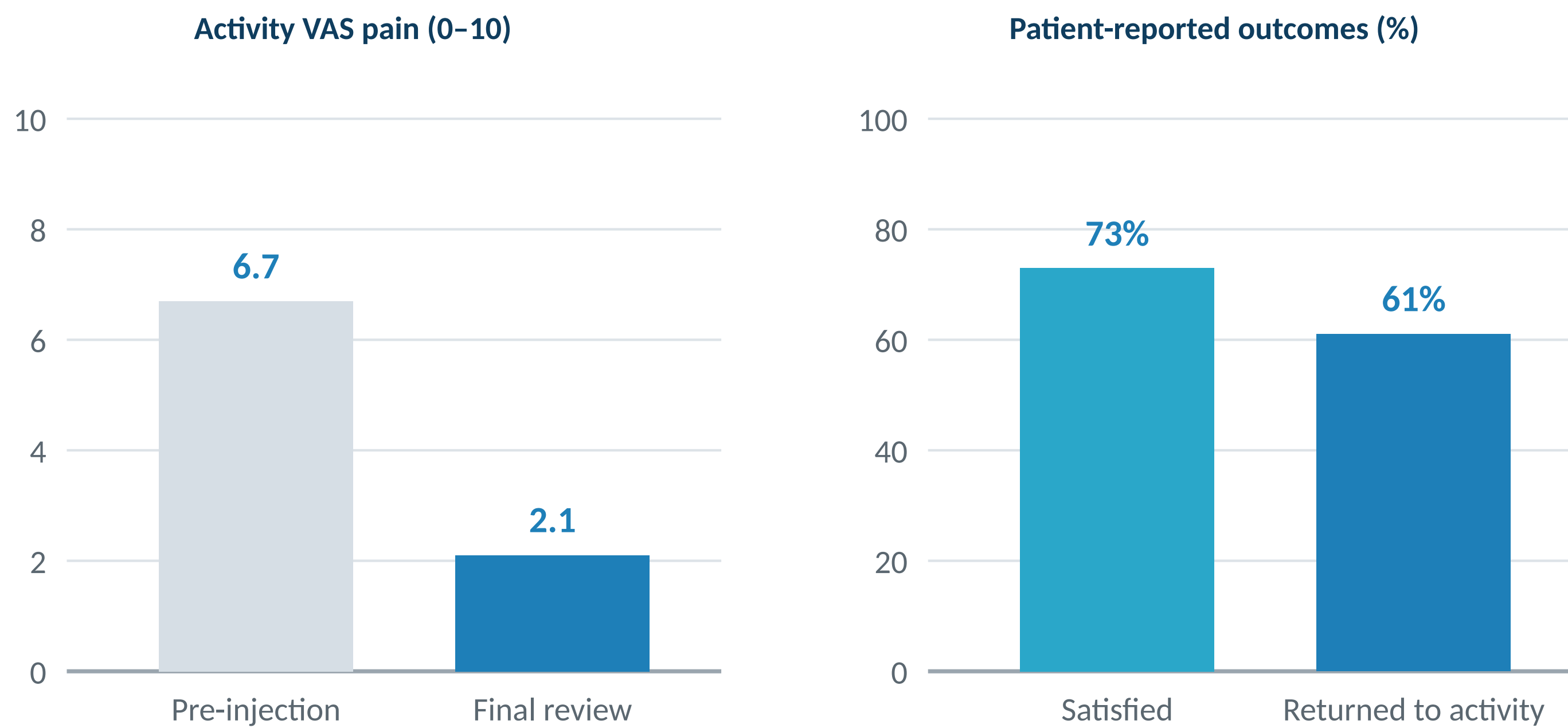
FAOS improved following ChondroFiller injection



68% of follow-up MRIs showed complete or nearly complete defect fill

MRI at mean 13.5 months (n=22).

Pain and patient-reported outcomes



FAOS and VAS are means; $p < 0.001$ (paired tests). Proportions are descriptive; uncertainty was not reported.

Conclusion

Ultrasound-guided ChondroFiller injection was associated with improved function and activity pain, high satisfaction and favourable MRI defect fill in selected focal talar cartilage defects.

No deep infections, reactions to the collagen gel or thromboembolic events were reported.

Limitations & next step

Retrospective single-centre cohort; 30 ankles; no comparator; MRI available in 22. Larger comparative studies with longer follow-up are required to define durability and optimal indications.

TAKE-HOME MESSAGE

Ultrasound-guided ChondroFiller injection offers a non-surgical, single-stage option for selected symptomatic focal talar cartilage defects.