Clinical Outcomes Following ChondroFiller Injection Treatment for Ankle Cartilage Defects

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AIM

To evaluate clinical and imaging outcomes following 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 may require graft harvest, staged treatment or more invasive surgery. ChondroFiller is an absorbable, cell-free type I collagen gel that fills a prepared defect arthroscopically and provides a three-dimensional scaffold to support endogenous repair.

1 METHODS

Single-centre retrospective cohort of 30 ankles in 29 adults treated arthroscopically over 24 months. Eligibility required an MRI-confirmed focal talar dome defect, persistent symptoms despite at least 3 months of non-operative care and at least 12 months of follow-up.

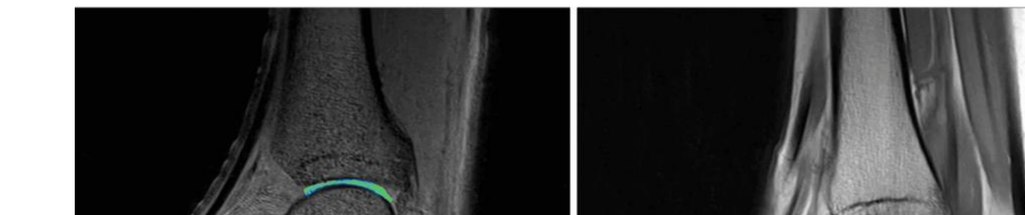
PRIMARY OUTCOME & ANALYSIS

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- and postoperative scores; chart whiskers show SEM calculated from the reported SD and n.

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 non-operative care; ≥12 months follow-up.
PROCEDURE	Arthroscopic debridement to stable margins; collagen gel filled the defect and hardened in situ before closure.
OUTCOMES	FAOS, activity VAS, satisfaction, return to activity, follow-up MRI, complications and revision.

Study pathway



30 ankles in 29 patients; minimum follow-up 12 months.

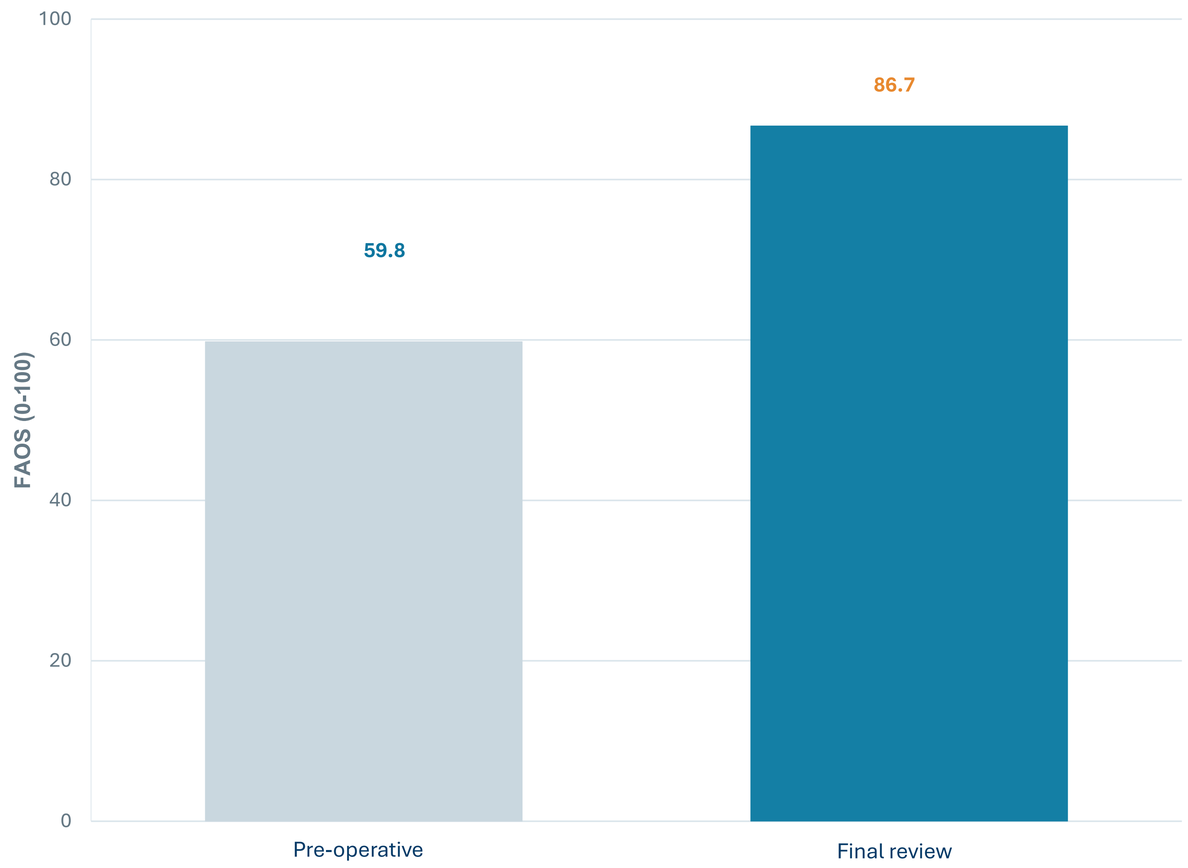
ChondroFiller Injection

Top: debrided focal talar dome defect · Bottom: defect filled flush with collagen gel

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

2 RESULTS & INTERPRETATION

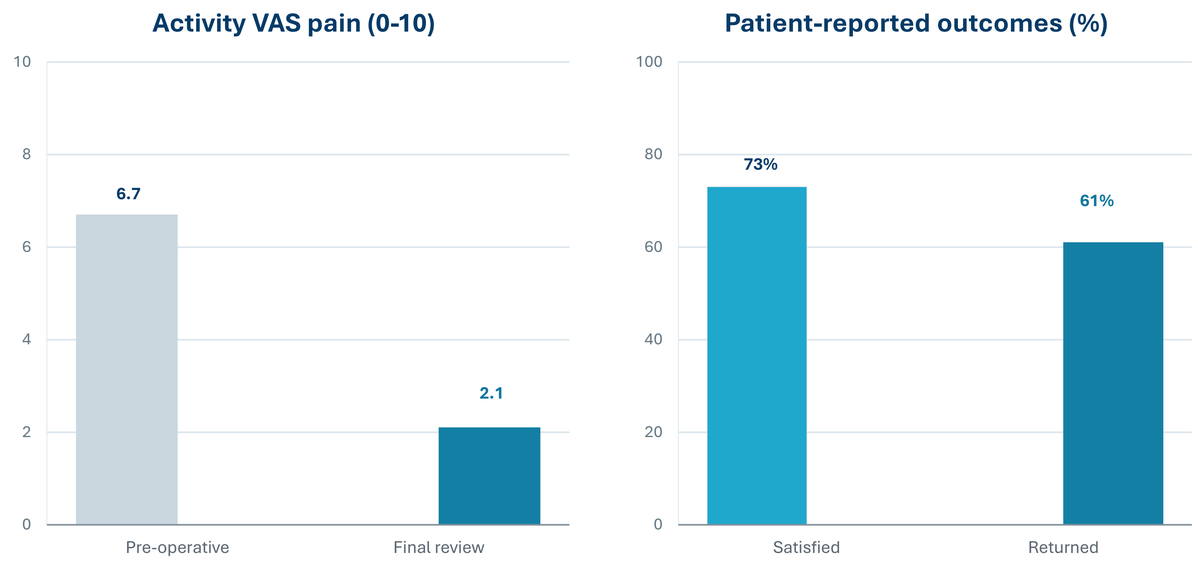
FAOS improved following ChondroFiller



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



VAS mean ± SEM; p < 0.001. Proportions are descriptive; uncertainty was not reported.

Conclusion

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, graft reactions 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

ChondroFiller offers a minimally invasive, single-stage option for selected symptomatic focal talar cartilage defects.

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