Early results of Autologous Matrix-Induced Chondrogenesis (AMIC) & Chondro-gide matrix procedure in Osteochondral lesions of talus

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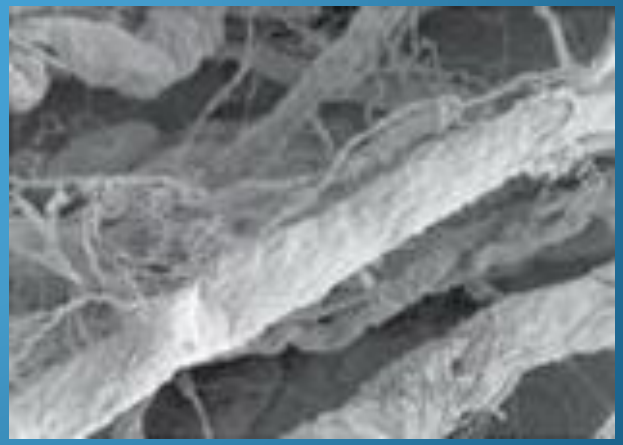


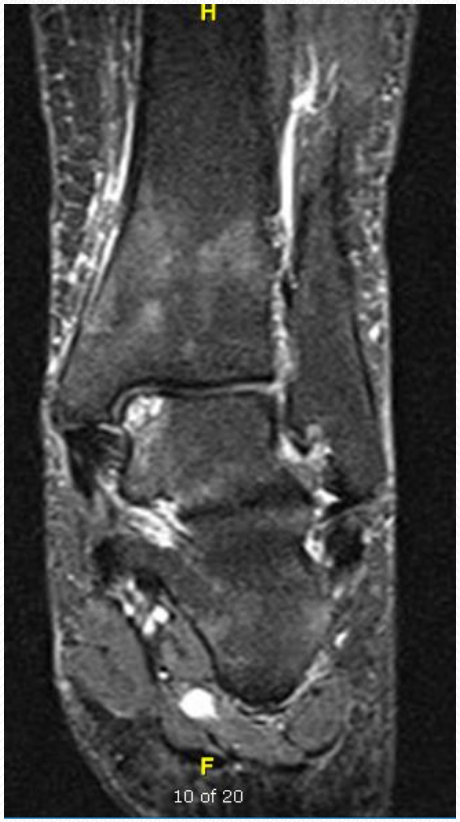
Osteochondral lesion(OCL) Talus

- Injury of talar articular cartilage & adjacent bone
- Osteochondral injuries of talus -1% of body injuries
- Etiologic factor – trauma in 93-98% for lateral defects & 61-70% for medial defects

Verhagen RA, Struijs PA, Bossuyt PM, van Dijk CN (2003) Systematic review of treatment strategies for osteochondral defects of the talar dome. Foot Ankle Clin 8: 233-242.

Purpose

A case series of five patients who underwent ankle arthroscopy & AMIC(Autologous Matrix Induced Chondrogenesis) with Chondro-gide matrix & fibrin glue for osteochondral lesions of talus



Materials and Methods

- Study Design- Prospective case series
- Study Population- Five patients diagnosed with osteochondral injuries of talus on preoperative MRI
- Injuries classified according to Berndt & Harty classification.

Materials and methods

Inclusion criteria –

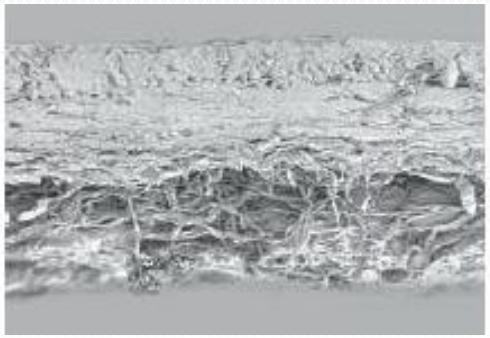
- Skeletally mature individuals with focal traumatic chondral/osteochondral defects of size >1 cm^2

Exclusion Criteria-

- Patients with metabolic arthropathies, major non-reconstructable defects, non-correctable axial mal-alignments, chronic inflammatory systemic disorders.

Materials and methods

- Preoperative & postoperative American orthopaedic foot and ankle scores(AOFAS)
- Weight-bearing ankle radiographs and MRI were done in all patients
- Intervention- Ankle arthroscopy & AMIC(Autologous Matrix Induced Chondrogenesis) with Chondro-gide matrix & fibrin glue



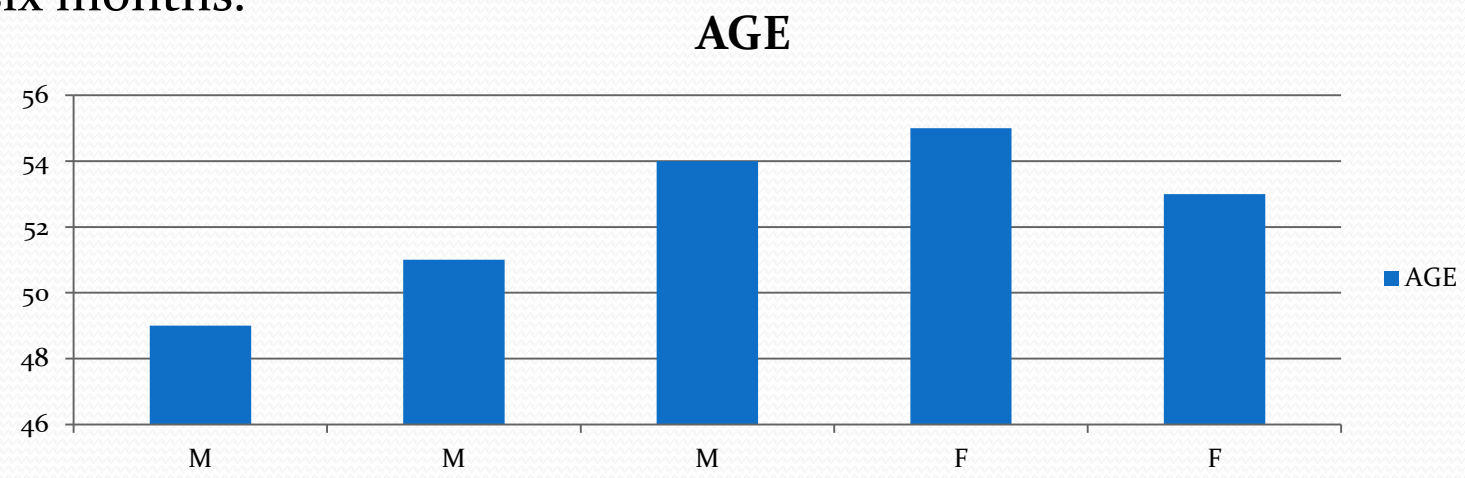
AMIC

- Single step procedure (Geistlich Surgery, Switzerland)
- Combines Microfracture with application of Chondro-gide, a porcine collagen type I/III matrix & fibrin glue application
- Chondro-gide – Scaffold that enhances chondrogenic differentiation of mesenchymal stem cells

- Any associated lateral ligament laxity- Simultaneous Modified Brostrum-Gould Procedure done
- Preoperative & postoperative American Orthopaedic Foot &Ankle Scoring (AOFAS)
- Follow up- Six months
- Standard Post-op protocol – non weight bearing for 6 weeks followed by increasing weight bearing

Results

- 3 males, 2 females (Total 5)
- Average age- 52.4 years
- Average Pre-op AOFAS score of 51, improved to post-op score of 78 at six months.



Conclusion

- Our case series show AMIC with Chondro-gide matrix procedure for >1 cm^2 osteochondral lesions of talus is a one-step surgical technique with encouraging results