Talus OCD Review

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Treatment Algorithm for Talus OCD: Articular cartilage injuries affect approximately 900,000 individuals in the United States every year

- Osteochondral injury of the talus can be challenging to treat because the damaged articular cartilage has a poor intrinsic reparative capability
- Microfracture is the most common initial procedure for treatment of talus OLT
- Reparative techniques such as excision combined with curettage, drilling or microfracturing (Bone Marrow Stimulation, BMS) were the first to be described
  - The effectiveness of these techniques that involve microfracture of the subchondral bone to allow stem-cell migration from the marrow cavity into the osteochondral defect has been well documented with a success rate that is approximately 72%
  - Large lesions (greater than 1.29cm²) or delaminating lesions may not respond well to microfracture, and have less reliable outcomes
  - Cystic lesions also may not respond well to bone marrow stimulation; therefore, a treatment algorithm based on the size, location and depth of the lesion can guide the provider toward a successful treatment outcome.
  - To improve these outcomes, a myriad of treatment options have emerged over the past decade, including: autologous chondrocyte implantation (ACI), matrix ACI with collagen or hyaluronic scaffolds, bone marrow aspirate, osteochondral allograft and live juvenile cartilage allograft.

- The current treatment algorithm is based on sized of the lesion
  - Small Size OCD (< 5 x 5 mm, minimal cystic change)
    - Microfracture, Drilling or Curretage
  - Medium Size OCD (5 x 5 mm to 10 x 10 mm, or smaller with cystic change)
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- Microfracture, Drilling or Currettage
- MACI (not available in USA), juvenile allograft, bone marrow aspirate
  - **Moderate Size OCD** (10 x 10 mm to 20 x 20 mm)
    - Matrix type ACI (not available in USA), juvenile allograft, bone marrow aspirate
    - ACI, Allograft or Autograft osteochondral graft
  - **Large Size** (> 20 x 20 mm)
    - Allograft or Autograft osteochondral graft
    - Bulk allograft

**Selected References:**


