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 1.29cm^2) 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 algorthim 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)

        - Microfracture, Drilling or Curretage
        - 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:

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