

Management Of Large Talar Osteochondral Lesions: Structural Allografts

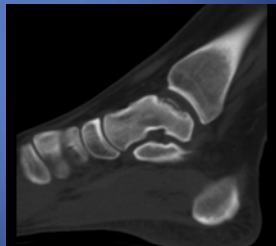
Adolph Samuel Flemister Jr MD
Professor and Chief Division Foot & Ankle
University Of Rochester

Disclosures

NONE

Definition: Large OCD

- >1.5 cm in diameter or >150mm²
- Shoulder Lesions
- Large Subchondral Cysts



Indications

- Failure of Arthroscopic management
- Failed open procedures
Other autografts or allograft transfers

Majority of these patients younger under 40-50y/o

This Talk

- Is about using large bulk allografts to treat these lesions
- Focus is on medial lesions which are most common



Allografts

Fresh Allograft Tissue likely better chondrocyte viability

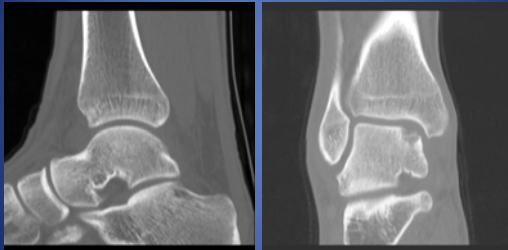
VS

Fresh Frozen Allograft tissue

Allografts

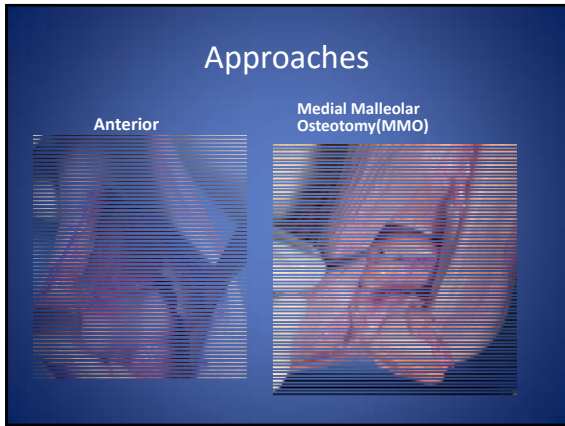
- Contact your preferred Tissue bank about need
- Does insurance approve surgery
- FDA approved banks, use guidelines of American Assoc. of Tissue Banks
- Either you or the tissue bank sizes the talus
Plain Xrays
CT scans

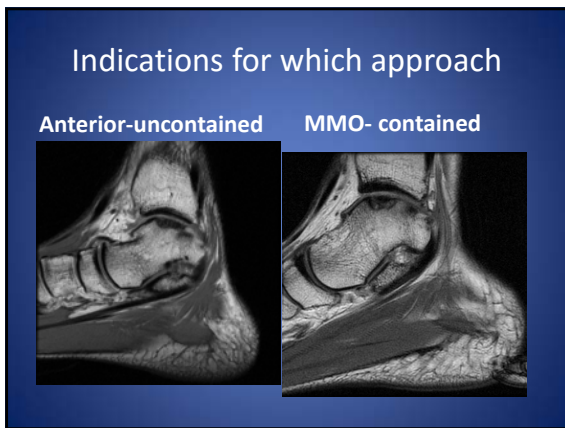
Sizing Talus CT scan

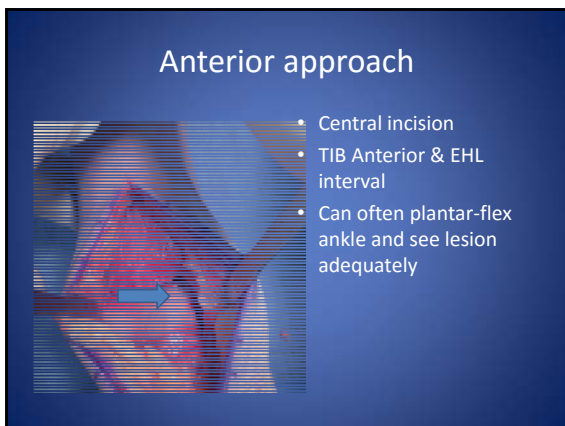


Fresh Allografts

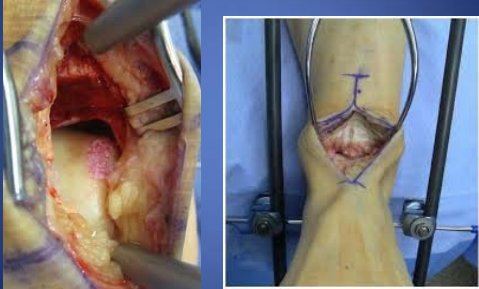
- Harvested within 24hrs of death
- 10-14 days of testing
- You may not get graft for 2 + weeks
- Recommended you use graft within 4 weeks of death for maximal viability of chondrocytes



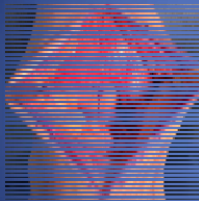




Distraction Devices



Resection



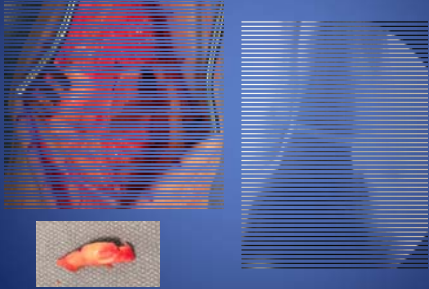
- Use fluoroscopic images as a guide
- Use microsagittal or reciprocating saw
- Plan to resect 1-2 mm margin
- At least 1-2 cm below dome

Resection



- Depth of resection limited by Talar neck
- Remove all posterior bone

Bone graft any deep cysts



The slide features two X-ray images of a jawbone. The left image shows a cross-section with a red overlay indicating a specific area. The right image shows a different view of the same area. Below the X-rays is a small inset photograph of a reddish, irregularly shaped bone graft specimen.

Prepare allograft
measure carefully



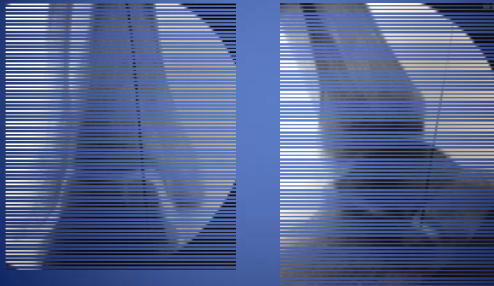
The photograph shows several pieces of bone graft material on a blue surface. A white ruler is placed next to the pieces to show their size. One piece is being held by surgical forceps.

Place allograft – check fit



The photograph shows an intraoperative view of a surgical site. A bone graft is being placed into a prepared cavity in the jawbone. The surrounding tissue is pink and moist.

Check fit and pin

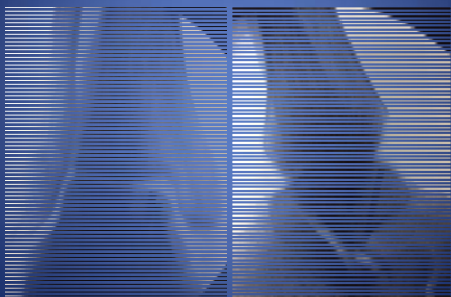


Screw fixation

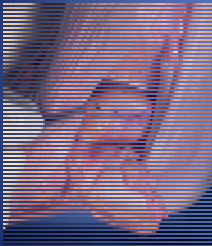


- 1.5, 2.0, 2.5 screws
- Headless or countersink
- ? Absorbable pins due to lack of compression

Check with C ARM



Medial Malleolar Osteotomy (MMO)

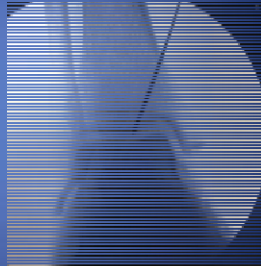
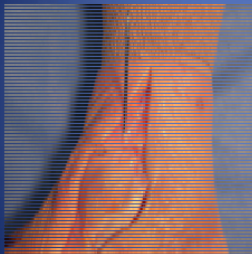


Can be used for all shoulder lesions

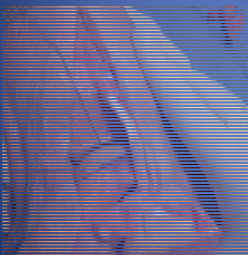
Excellent exposure

Eases screw placement

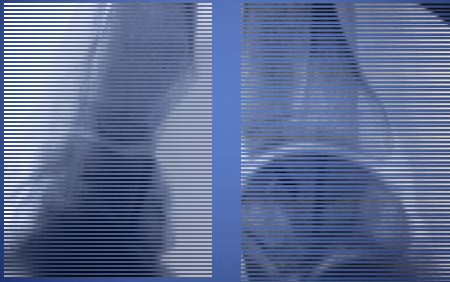
Oblique Osteotomy



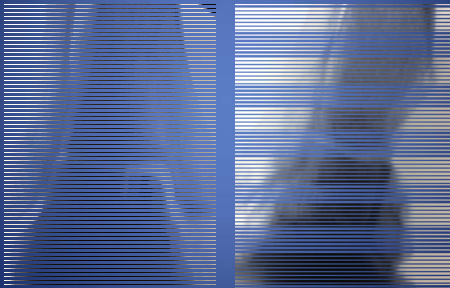
Exposure & Screw placement



Screw placement



Horizontal screw adds compression



Lateral approach



Central OCD



Post op

- Splint X2 weeks
- Cast x 4 more weeks
- WBAT at 10 weeks
- CAM boot & ROM
- 10 wks full PT
- Cutting activities 4 mos
- Full activity 6 months

Outcomes

- Gross et al- 9 pts, 3 pts needed fusion
- Raikin et al- 15 pts- 11 G&E
- Gortz et al- 12 pts, 80% functional grafts
- Hahn et al- 13 pts -100% graft incorporation
- El Rashidy et al- 38 pts, 4 failed grafts
- Adams et al- 6 pts, all improved
- Haene et al -17 pts, 3 failures,

Problems

- Graft incorporation, 60-80%,
- Subsidence, 100%
- Multiple fu procedures
- AT Best 60 -80% good results



Recommendations

- Expensive procedure
- Can have excellent results
- But can be fraught with complications
- Use as last resort in healthier patients

Thank You
