Glenoid Bone Defects: Evaluation and Management

Baker, Uribe, Whitman 1990
- 45 patients
- 6 capsular tear
- 11 partial Bankart
- 28 complete Bankart

Ribbens et al, JBJS(B) 1990:
- All patients < 50 yo had Bankart
- 75% > 50 yo had Bankart
- Capsular tears, cuff tears, fractures more common in older patients

- 54 pts with acute dislocation (55 shoulders)
- 52 treated arthroscopically
- 3 treated primary open

Findings
- 55 Hill-Sachs
- 52 Bankart
- 1 combined with HAGL (B-HAGL)
- 3 combined with capsular tear
- 1 HAGL
- 1 capsular tear
- 13 SLAP
- 9 Type II

Cadaveric Study
- Tested Progressive Glenoid Loss
- >21% loss of glenoid width compared to length may cause instability and limit range of motion after Bankart repair.

Assess Glenoid Bone Loss
The Effect of a Glenoid Defect on Anterior Shoulder Stability After Bankart Repair: A Cadaveric Study

THE GOOD:

- Hovelius L: JSES 2004
  - 118 Patient followed 15 years
  - 1/118 recurrence after 2 years
  - 3/118 recurrence after 15 years
  - 98% patient satisfaction at 15 years

- Hovelius L: JSES 2001
  - Compared Bankart vs Latarjet
    - Bankart
      - 26 shldrs (24yrs)
      - 1 redislocation
      - OA in 16/26
    - Latarjet
      - 30 shldrs (15yrs)
      - 1 redislocation
      - OA in 9/30

  - 102 patients with “inverted pear glenoid”
  - 32-108 months F/U
  - Constant score 94%
  - 4 recurrent dis+1 recurrent sublux/102= 5%

  - 58 Shoulders F/U 14yrs (range 10-23yrs)
  - No recurrences (6 with apprehension)
  - Rowe score: 88% good/ex
  - OA Grades: I(25); II(4); III(3); IV(2); IV-post (2)
Gerber & Nyffler, 2002

Suspicion of Glenoid bone loss:
- Failed prior surgery
- Large Number of recurrences
- Reducing force necessary for dislocation
- Marked Apprehension/Relocation on PE

Plain Radiographs: Trauma series
- MRI: Many came with this...
- CT-Arthrogram
- 3-Dimensional CT Reconstruction

Latarjet Versus ICBG

Open Shoulder Repair of Osseous Glenoid Defects
Biomechanical Effectiveness of the Latarjet Procedure Versus a Contoured Structural Bone Graft


Latarjet reduces anterior translation 354% compared to defect alone
ICBG decreases translation 179%
Biomechanically, favors Latarjet over ICBG
Fate of large structural allograft for treatment of severe uncontained glenoid bone deficiency
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