Massive Rotator Cuff Tears – Is There an Indication for Arthroplasty? Hemi or Reverse?

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A. Massive Cuff Repair Results in Patients with Pseudoparalysis
   1. symptomatic outcomes appear comparable to patients with similar tears, but no pseudoparalysis
   2. greater likelihood of persistent pseudoparalysis
   3. greater healing rates, but may not be significantly so

B. Rotator Cuff Allograft Augmentation
   1. allograft – cadaveric dermal tissue
      a) younger age (~60)
      b) 75% intact at 2 years (by US)
      c) average elevation to 155°
      d) improvement but not normal strength
   2. xenograft – porcine dermal tissue
      a) younger age (~60)
      b) 70% intact at 2 years
      c) 20% partially intact
      d) good pain relief
      e) functional strength

C. Hemiarthroplasty
   1. indications
      a) painful unrepairable cuff tear
      b) mild – moderate arthritis
      c) > 90° active flexion
      d) consider convertible humeral component

D. Reverse Arthroplasty
   1. indications
      a) irreparable rotator cuff tears with pseudoparalysis
      b) 2 or more tendons involved
      c) with or without anterosuperior escape
      d) if Hornblowers and weak external rotation, consider latissimus dorsi transfer with RSA
2. contra-indications
   a) active elevation > 90°
   b) infection
   c) deltoid deficiency / axillary nerve dysfunction
   d) other etiologies (cervical radiculopathy, brachial plexopathy)
   e) younger age (<60) ???

3. outcomes
   a) 40 – 50% excellent
   b) 80 – 90% satisfied
   c) health-related quality of life at 5 years similar to age-matched controls
   d) >95% survival at 5 years (OA, massive cuff tear, cuff tear arthropathy)
   e) functional ROM: F = 140°, Abd = 130°, ER = 35°, IR = 60°
   f) functional ability similar to hemi, TSA, but fewer pursue athletics

4. complications
   a) infection
   b) scapular notching
   c) acromial fracture
   d) dislocation
   e) component loosening
   f) periprosthetic fracture
   g) neurologic injury
References


