Timing of arthroscopy does not impact recurrence rate of ankle instability in patients undergoing lateral ligament repair surgery

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Disclosures

• I (or my co-authors) have nothing to disclose
Background

- In patients with chronic ankle instability, ankle arthroscopy is often performed prior to lateral ligament reconstruction to evaluate for associated intra-articular pathology.
- Usually performed immediately prior to ligament repair (single stage).
- May be scheduled weeks prior to definitive ligament repair.
  - Surgeon Preference
  - Avoid fluid extravasation and increased difficulty in handling ligaments and soft tissue.
Purpose/Hypothesis

• **Purpose**: Determine whether timing of arthroscopy (single stage versus double stage) influences failure rates of lateral ligament repair

• **Hypothesis**: Arthroscopy timing will not affect rates of ankle instability recurrence and/or the need for revision repair
Materials and Methods

• Retrospective Review
  • Patients with chronic lateral ankle instability who underwent arthroscopy prior to lateral ligament repair from 2011-2015

• Exclusion criteria
  • Age <18 years
  • Gross trauma
  • Revision repairs
  • Insufficient follow up (<1 year)
  • Concomitant procedures (triple arthrodesis, total ankle arthrodesis, etc.)
Materials and Methods

• Surgical Failure
  • Defined as recurrence of instability
  • Need for revision surgery

• Complications
  • Infection
  • Neuritis (Sural, Superficial Peroneal Nerve, Saphenous)
  • Chronic pain
Results

• 131 patient charts reviewed; 102 analyzed for study
  • Single Stage n=65; Double stage n=37
  • Women comprised 72% (73/102)
  • Mean Age: 35.7 (19-68)
  • 80.4% Brostrom-Gould modification; 19.6% Brostrom repair
  • No significant demographic differences between groups
Recurrence of Instability/Need for Revision Surgery:
- Single Stage = 11% (7/65)
- Double Stage = 8% (3/37)  \[ P = 0.655 \]

Complication Rate:
- Single Stage = 13.8% (9/65)
- Double Stage = 32.4% (12/37)  \[ P = 0.025 \]
Discussion

• Surgeon preference dictates timing of arthroscopy prior to lateral ligament repair

• Ideally arthroscopy and ligament repair performed in same sitting
  • Reduced cost
  • Reduced time burden on patient
  • Decreased complication rate
  • No increased rates of recurrence of instability
Discussion

• Is there an argument for double stage scope?
  • Unclear
    • Unable to collect scope time for single stage group; therefore, unable to determine if prolonged scope time plays a role
    • Surgeons inexperienced with arthroscopy may lead to increased scope time, increased fluid extravasation and increased difficulty dealing with soft tissue during repair

• Other weaknesses:
  • Surgeries performed by multiple surgeons with various techniques (Brostrom, Modified Brostrom-Gould)
Conclusion

• Arthroscopy may be performed immediately prior to lateral ligament repair without concern for increased risk of recurrence of instability

• Future prospective studies exploring whether scope time during single stage arthroscopy and lateral ligament repair influences failure rates will be of value
References


