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

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Introduction/Purpose: Ankle sprains are common orthopaedic injuries. Although the initial treatment is conservative, some patients may develop chronic instability requiring surgical repair. Arthroscopy is often performed prior to ligament reconstruction to evaluate concomitant intraarticular and cartilage injuries. Arthroscopic treatment may be performed immediately prior to ligament repair (single stage), or it may be scheduled days/weeks prior to ligament repair (double stage). Concerns of single stage arthroscopic treatment are related to the increased difficulty in dealing with ligaments and soft-tissue injuries hindered by fluid extravasation. Our study compares outcomes between single and double stage arthroscopy in patients undergoing lateral ligament repair surgery.

Methods: In this retrospective study we reviewed charts of patients with chronic lateral ankle instability who underwent ankle arthroscopy followed by lateral ligament repair from 2011 to through 2015. A total of 102 patients were included in the study, 65 patients in the single stage group, and 37 in the double stage group. Surgical failure was defined as recurrence of ankle instability at any point in the follow up period after the procedure. Demographic data and recurrence rate of instability were compared between the groups using chi-squared test.

Results: Women comprised 72% (73/102) percent of the total patient population. No significant differences in demographic data were found between the two groups. There was no difference in the recurrence rate of lateral ankle instability between patients who underwent 1-stage versus 2-stage arthroscopic treatment. The rate was similar between the groups: 10.8% (7/65) of patients with the single stage technique and 8.1% (3/37) of patients in the double stage group (p=0.6208).

Conclusion: In the treatment of chronic lateral ankle instability, the use of single-stage arthroscopy and lateral ligament repair showed similar rates of surgical failure when compared to the double-stage procedure. A single stage approach may be a more efficient use of time and hospital resources, and avoids the need to place the patient under anesthesia multiple times. Arthroscopy may be performed immediately prior to lateral ligament repair without concern for increased risk of recurrence of instability.