

Arthroscopic Anterior Talofibular Ligament Repair and Gould Procedure Via Two Portals for Lateral Ankle Instability

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Summary:

Arthroscopic anterior talofibular ligament repair and Gould procedure via 2 portals brought about early relief from pain after surgery and early return to athletic activity.

Abstract:

INTRODUCTION

Although some types of procedure for arthroscopic repair of the lateral ankle ligaments have been reported, these procedures are complicated and sometimes accompanied by complications. We have established novel technique for arthroscopic repair with concise procedure via 2 portals and have been applied for patients with lateral ankle instability.

PURPOSE

To compare clinical outcome between our arthroscopic repair and traditional open Brostrom and Gould procedure for lateral ankle instability.

MATERIALS & METHODS

Traditional open surgery group (Group O) included 28 patients (20 feet) who underwent open Brostrom and Gould procedure before March 2013, and arthroscopic surgery group (Group A) included 26 patients (26 feet) who underwent arthroscopic repair of the anterior talofibular ligament (ATFL) with Gould augmentation after April 2013. In Group A, medial midline (viewing portal) and accessory lateral portal (working portal) were used and the ATFL and inferior extensor retinaculum were attached using 2 suture anchors through accessory lateral portal. In Group O, same procedure as Group A was performed under open approach. In these 2 groups, operation time, visual analog scale (VAS) at 3 days and 2 weeks after surgery, surgical complication and the time between surgery and return to athletic activity were investigated and compared.

RESULTS

Mean operative time of Group A and O were 37 and 49 minutes respectively ($p < 0.01$). Mean VAS at 3 days after surgery in Group A and O were 30.1 and 44.2 points ($p < 0.01$), and at 2 weeks after surgery were 10.9 and 16.1 points respectively ($p < 0.01$). Mean time between surgery and return to athletic activity was 4.8 weeks in Group A and 6.8 weeks in Group O ($P < 0.01$). In Group A, there was a case with superficial peroneal nerve injury which recovered naturally. In Group O, there was also a case with transient superficial peroneal nerve, and 4 cases complained uncomfortable around the surgical wound.

DISCUSSION

Our novel technique for arthroscopic repair which needs only 2 portals seems to be effective for pain relief at early stage after surgery and makes it possible to return early athletic activity. However, long term follow up investigation with a larger sample population is necessary to reveal the continuous effectiveness of the present procedure.