GNYACSM Abstract

Lower Leg Injury — Basketball

DALTON DOWD, KOREY BUNAL, & ALI BOOLANI

Clarkson University; Potsdam, NY

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Advisor / Mentor: Boolani, Ali (aboolani@clarkson.edu)

ABSTRACT

HISTORY: A 21y/o male, Division III (D3) basketball player inverted his right (R) ankle during practice landing from a jump. The athlete felt a popping sensation over the lateral aspect of his R ankle, had immediate pain and the supervising athletic trainer (AT) evaluated him for major deformity. Unable to ambulate, he was transported to the athletic training room for further examination.

PHYSICAL EXAMINATION: Upon initial examination, no obvious deformity, swelling, or ecchymosis was noted. During palpation the lateral malleolus and distal ⅓ of the fibula were point tender. Special tests were performed to rule out fracture and ligament damage; Squeeze Test (-), Bump Test (-), Anterior Drawer (+ for pain), Talar Tilt Inversion and Eversion (-). After testing, the ankle and distal ⅓ of the fibula swelled rapidly, increasing point tenderness, and the squeeze test became positive. He was given crutches, a compression sleeve, and instructed to go to the ER for diagnostic imaging.

DIFFERENTIAL DIAGNOSIS:

1. Fracture of distal ⅓ of fibula
2. ATF ligament sprain
3. Rupture of Peroneal Retinaculum

TEST AND RESULTS: Radiographs of the R ankle and lower leg (LL).

–Nondisplaced fibular fracture.

Weight bearing (WB) radiograph was ordered after he slipped and fell.

–Could not stand during imaging due to extreme pain; the radiograph was postponed.

–One week later imaging revealed the bone remained nondisplaced.

FINAL WORKING DIAGNOSIS: Spiral Fracture of Distal ⅓ of Fibula

TREATMENT AND OUTCOMES:

1. Alternated between hard cast, crutches, and walking boot due to physician disagreement for 2 weeks. Subsequently, spent 1 week in a hard cast and 3 weeks in a walking boot.
2. Athlete was instructed to gently perform ROM exercise on his own but forbidden to begin physical therapy (PT) per orthopedic.
3. 7 weeks after initial injury, transitioned to ankle brace and was instructed to begin full WB ambulation.
4. Rehabilitative exercises began ~7-8 weeks after initial injury. Initial rehabilitation included: daily active and passive ROM, light calf and ankle strengthening exercises, and WB exercises.
5. 9 weeks post injury began PT focusing on lower leg and ankle strength. Implemented Laser Therapy pre and post treatment, Instrument Assisted Soft Tissue Mobilization, and a plyometric program for calf and ankle strength.
6. Returned to play 13 weeks post injury, wearing ankle brace.

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