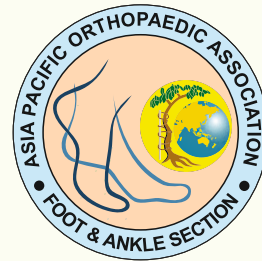


APOA Foot & Ankle Council Presents..

Case of the Fortnight

15th November 2021



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Presented by:



Prof. Young Koo Lee

Dept. of Orthopedics, Soonchunhyang University,
Bucheon Hospital, Republic of Korea

Clinical Presentation:

An 11-year-old bone immature girl presented with a dull pain of lateral ankle area and instability. Seven years ago she got a crushing injury of ankle due to pedestrian traffic accident and underwent conservative treatment and split thickness skin graft. Three years latter full thickness skin graft operation was performed.

Clinical Evaluation

Clinical examination revealed positive squeezing and external rotation tests.

Title:

**Arthroscopic Syndesmotic Repair
for Ankle Syndesmotic Injury**

*Upcoming Case of the Fortnight
on 1st December 2021*

Presented by:

Dr. Samuel KK Ling

Clinical Asst. Prof. and
Head of the Foot and Ankle Team
Dept. of Orthopaedics and Traumatology,
Faculty of Medicine, The Chinese
University of Hong Kong (CUHK)



Title:
Tarsal Tunnel Syndrome

INSIDE ➔

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Radiological evaluation

On radiograph images was found widening of MCS-5.46 mm, discrepancy of clear space; evaluation of TFO was impossible because of epiphysis dysgenesis. MRI revealed ATFL total rupture.

Arthroscopic examination

During arthroscopy examination was confirmed total rupture of ATFL, found positive syndesmosis-probing test and intact PITFL

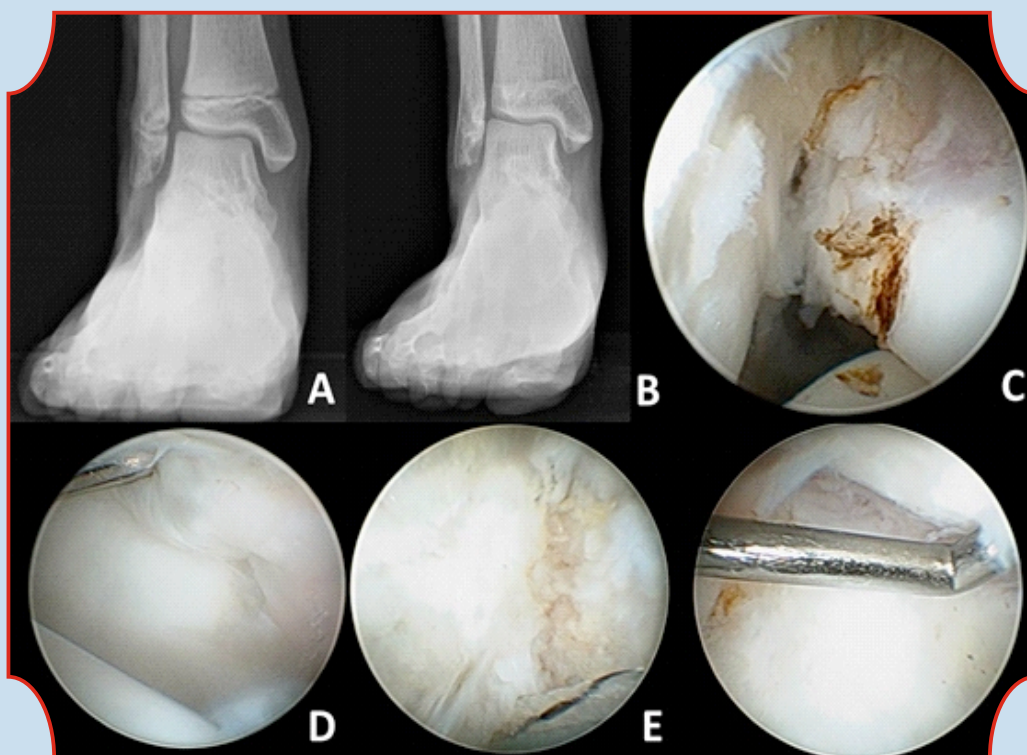


Fig 1.

An 11-year-old girl's preoperative (A) and postoperative (B) one and half year follow-up weight bearing radiography images. Intraoperative images of syndesmosis diastasis ©, positive syndesmosis-probing test (D) and postoperative views of syndesmosis arthroscopically repaired syndesmosis injury (E) and negative syndesmosis-probing test (F)

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Treatments

The patient underwent arthroscopic syndesmotic repair and arthroscopic modified Brostrom operation. For syndesmotic repair were used two BioComposite SwiveLocks, 3.5 mm (Arthrex). They were inserted under fluoroscopic and arthroscopic guidance. The point for fibula anchor insertion was anterior aspect on the level of joint line and tibia- about 1 centimeter medial from the fibula medial side and as much superior as possible. The tension of FiberTape between two fibula and tibia inserted anchors provides stability of syndesmosis

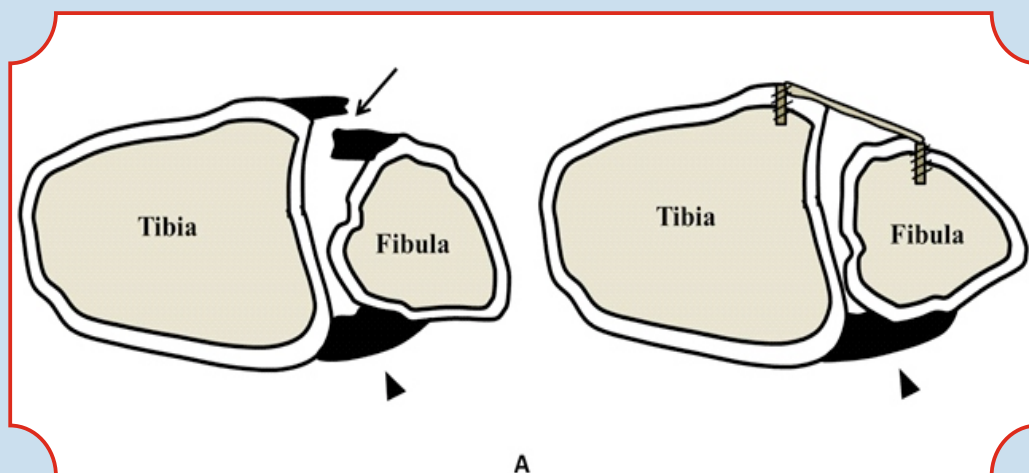


Fig 2.

Schematic representation of the operation. Rupture of AITFL (arrow) and intact PITFL (arrowhead) - "open book" syndesmotic injury (A). View of repaired AITFL with two anchors (B)

Learning Points

Our proposed algorithm first involves the performance of the external rotation stress test when syndesmosis injury is suspected. If this test is positive, the syndesmosis area should be arthroscopically evaluated. The syndesmosis-probing test should also be performed, and the state of the PITFL should be determined. If the PITFL is intact, the patient should undergo arthroscopic syndesmotic repair. If the PITFL is injured, the screw or suture-button technique should be performed (Figure 3).

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My preferred Algorithm

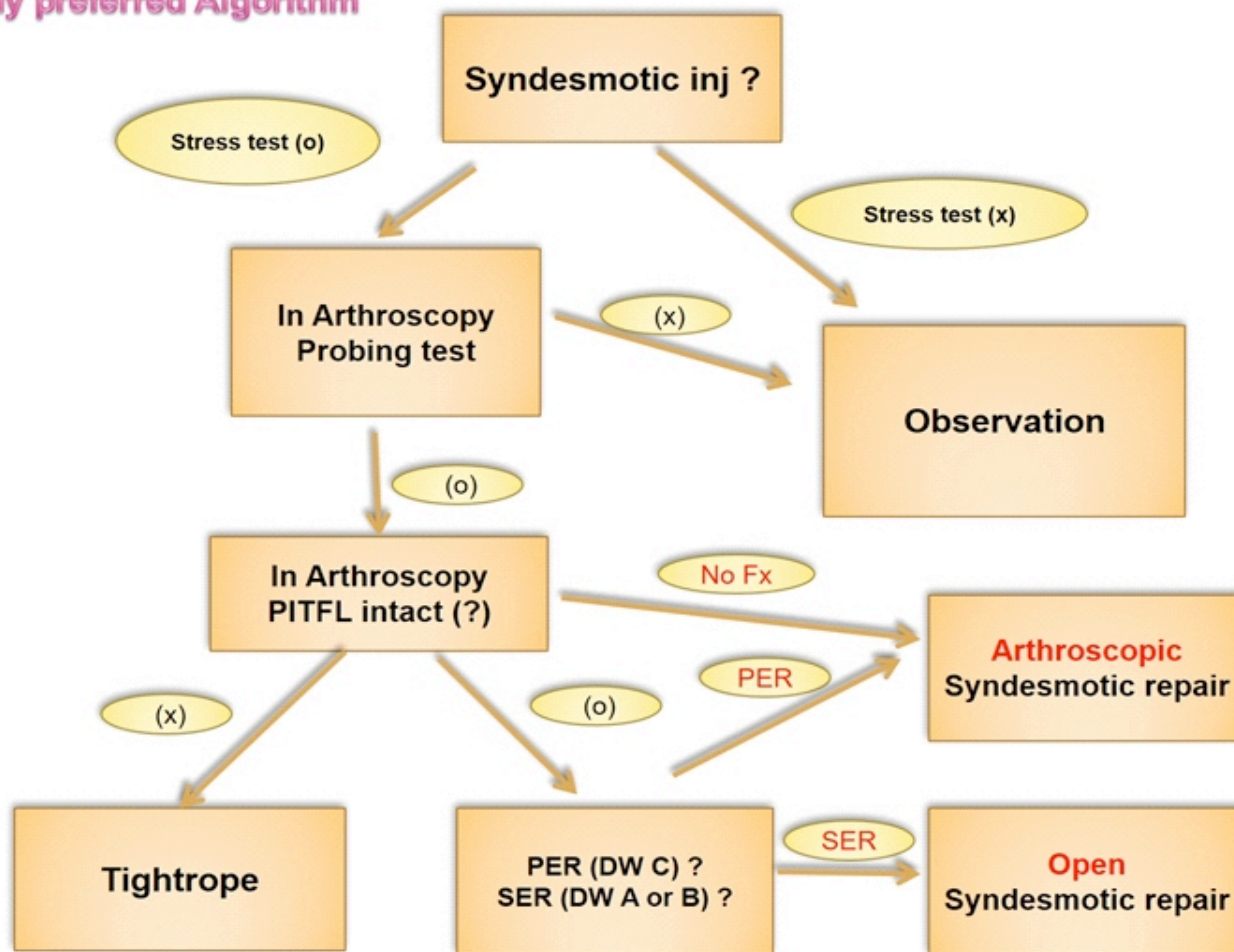


Fig 3.

Decision tree for syndesmosis injury of ankle

The algorithm involves use of the procedure in cases of “open book” injuries. It is suggested that this procedure is not strong enough for the cases of severe injury with tear of PITFL and can provide stability only of the anterior area of syndesmosis. Furthermore, the whole force of fixation, in contrast to suture button or screw technique, applies not to the center of syndesmosis but only to the anterior area, thus intactness of PITFL is mandatory for sufficient outcome.

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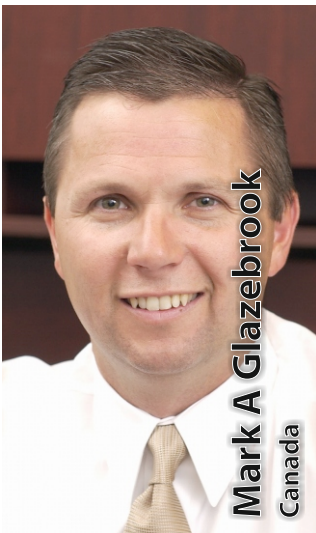
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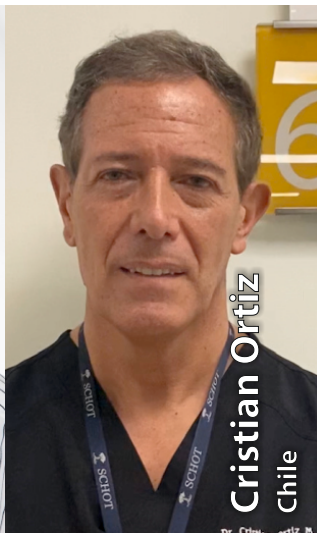
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