Following Anterior Talo- Fibular Ligament (ATFL) reconstruction in adult humans, does the use of an air-cast splint post op have any beneficial effect on pain, range and activities of daily living (ADL)?

Clinical bottom line:

Insufficient evidence currently exists, to make an informed clinical decision around the use of air-cast splints in the post- operative rehabilitation phase of reconstruction surgery of ATFL.

Criteria for Critical Appraised Topic:

Population: Adult patients with injuries of the ATFL.

Intervention: Use of Air cast splints post -operative repair of ATFL

Outcomes: Pain, range of ankle movement and activities of daily living.

Inclusion: Studies published in English

Exclusion: None English published articles.

Databases searched:

Medline, Embase, Cinahl, Ahmed.0 I, Pedro is a search of PEDRO database, I salo searched Rehab data, Web of Science, OT Seeker and NHS Evidence.

Key words searched: Anterior talo-fibular ligament or lateral ligaments, ankle and air cast or ankle within 3 words of brace or splints.

Types of Studies:
RCT's

Available evidence:

Database (specific to CAT)	Number of abstracts	Number of relevant abstracts
Medline	5	1
Embase	5	0
Cinahl	4	0
Ahmed	1	0
PEDRO	6	0
Rehab data	0	0
Web of science	0	0
OT Seeker	0	0
NHS evidence	0	0

Results:

18 articles were found from the search, but only one encompassed the CAT question: Early mobilization versus immobilization after ankle ligament stabilization. Unfortunately this Swedish study only had a sample of 30 patients; 15 in each group. The outcome measures used in the study were Radiological evaluation of stress tests: Anterior translation and Talar tilt, torque measurements of Plantar flexion and Dorsi flexion and a scoring scale of 8 parameters to assess ankle impairment, which included pain and ADL.

This study was considered too small a sample size to base any clinical decision, or make changes to clinical practice at the present time.

Future research questions:

Further research to compare and evaluate the use of air-cast splints in post- operative ankle surgery needs to be considered.

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