

Effect of Compression Stockings medi Rehab®one on Postoperative Recovery Following Anterior Cruciate Ligament Reconstruction

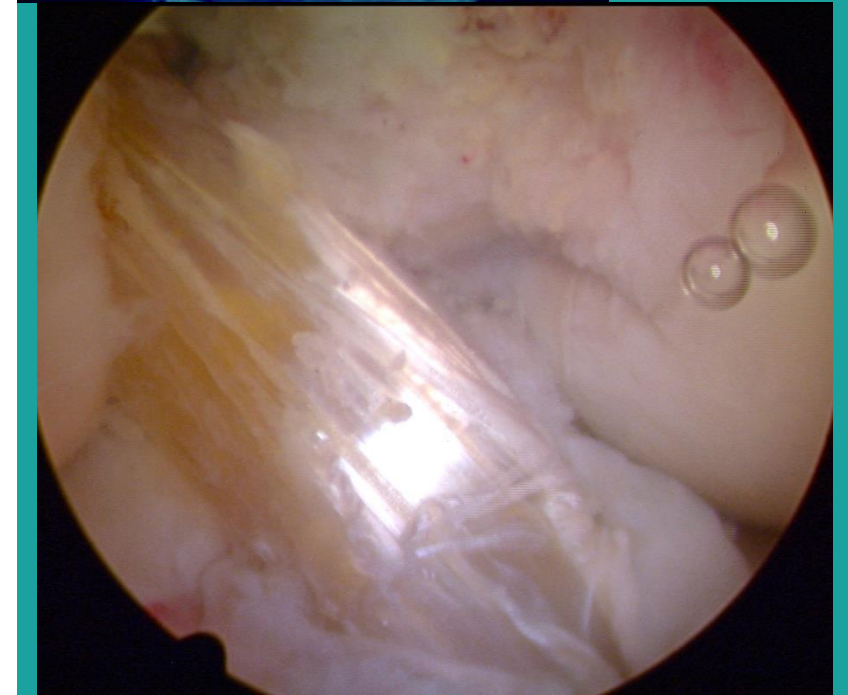


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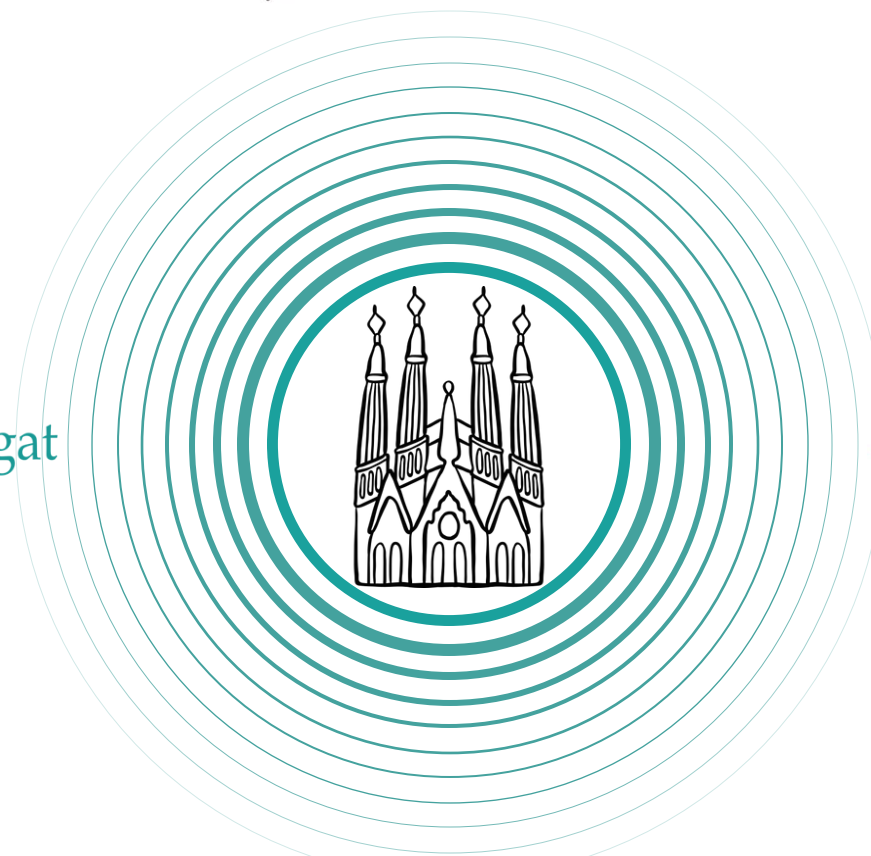
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fundación García Cugat
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Disclosure

Smith & Nephew Consultant
Research collaboration BTI



INTRODUCTION

Epidemiologic analysis of 125,251 injuries in soccer at Mutualidad de Futbolistas

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LOCATION	NUMBER OF INJURIES	PROPORTION	SPECIFIC INJURY	NUMBER OF INJURIES	PROPORTION
KNEE	22018	17,57910116%	FOOT SOFT TISSUE	13426	10,71927569%
TOES	17113	13,66296477%	KNEE CARTILAGE	7759	6,19476092%
ANKLE	13698	10,93643963%	ANKLE LCL	6419	5,124909182%
THIGH	11243	8,976375438%	THIGH SOFT TISSUE	6410	5,117723611%
LEG	8657	6,911721264%	LEG SOFT TISSUE	6228	4,97241539%
HAND	6467	5,16323223%	ACL	4090	3,26544299%
HEAD	5704	4,554055457%	HEAD / FACE	3838	3,064246992%
WRIST	3415	2,726525138%	MEDIAL MALLEOLUS	3043	2,429521521%
SHOULDER	3366	2,687403693%	FINGER PHALANX	3009	2,402376029%
FOREARM	2318	1,850683827%	PATELLA	2914	2,326528331%
HIP	1267	1,01156877%	ADDUCTORS	2530	2,019943953%
ELBOW	1195	0,954084199%	LUMBAR SPINE	2517	2,009564794%

INTRODUCTION

Open Access Journal of Sports Medicine

Dovepress

open access to scientific and medical research

 Open Access Full Text Article

REVIEW

Effects of Wearing Compression Stockings on Exercise Performance and Associated Indicators: A Systematic Review

This article was published in the following Dove Press journal:
Open Access Journal of Sports Medicine

- “We conclude that wearing CS during exercise improved performance in a small number of studies. However, **wearing CS could benefit muscle function indicators and perceived muscle soreness during the recovery period**”.

INTRODUCTION



- medi Rehab® one is a **medical compression stocking** type CCL 1. It has a **graduated pressure distribution defined from distal to proximal**. Thanks to the pressure exerted on the tissue from the outside, existing **edema is reduced** and its formation is **counteracted**.

INTRODUCTION



PURPOSE

To study the effect of postoperative use of the medi Rehab® one stocking in soccer players undergoing ACL surgery and the Mutualidad de Futbolistas Españoles (Tegner 9-10)

Study Design: prospective randomized study

Material and methods

Material

86 subjects were included

2 groups:

- 43 patients a intervention group medi Rehab® one
- 43 patients tubigrip group.

Methods

Mesures:

VAS

Hematoma (0,+,++,++++)

Join Range Motion

Thigh perimeter

Time postop. 1 week, 2 weeks, 1 month, 3 months

	Total (n = 86)	Grup Rehab one (n = 43)	Grupo control (n = 43)	p-value
Sex				
Men	61	31	30	1.000
Women	25	12	13	
Leg				
Right	45	21	24	0.666
Left	41	22	19	

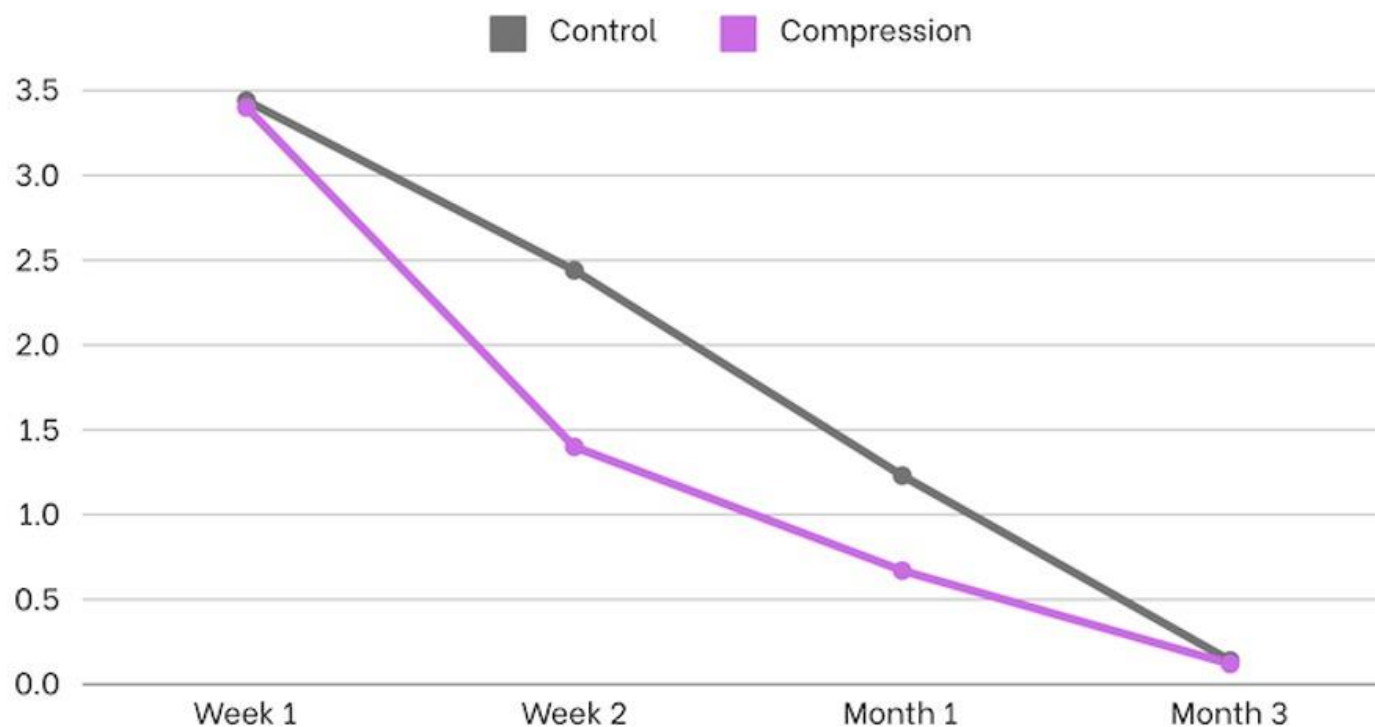


This study was approved by the investigational review board of our institution, and we followed ethical standards according to the guidelines for sport and exercise science research.

Results

VAS

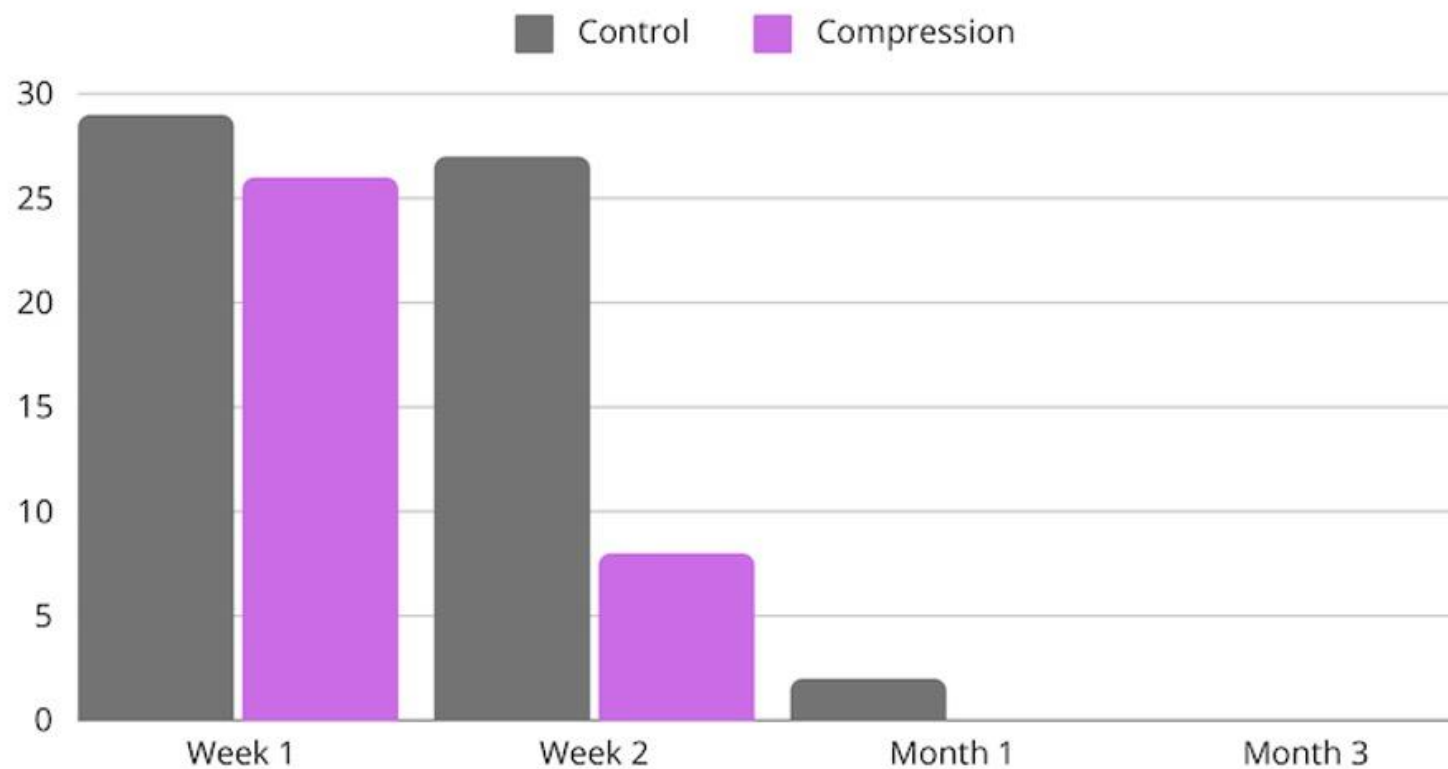
Statistically significant differences were observed between the two groups in the 2 week and 4 week periods better in medi Rehab® one group. ($p < 0,0059$)



Results

Hematoma

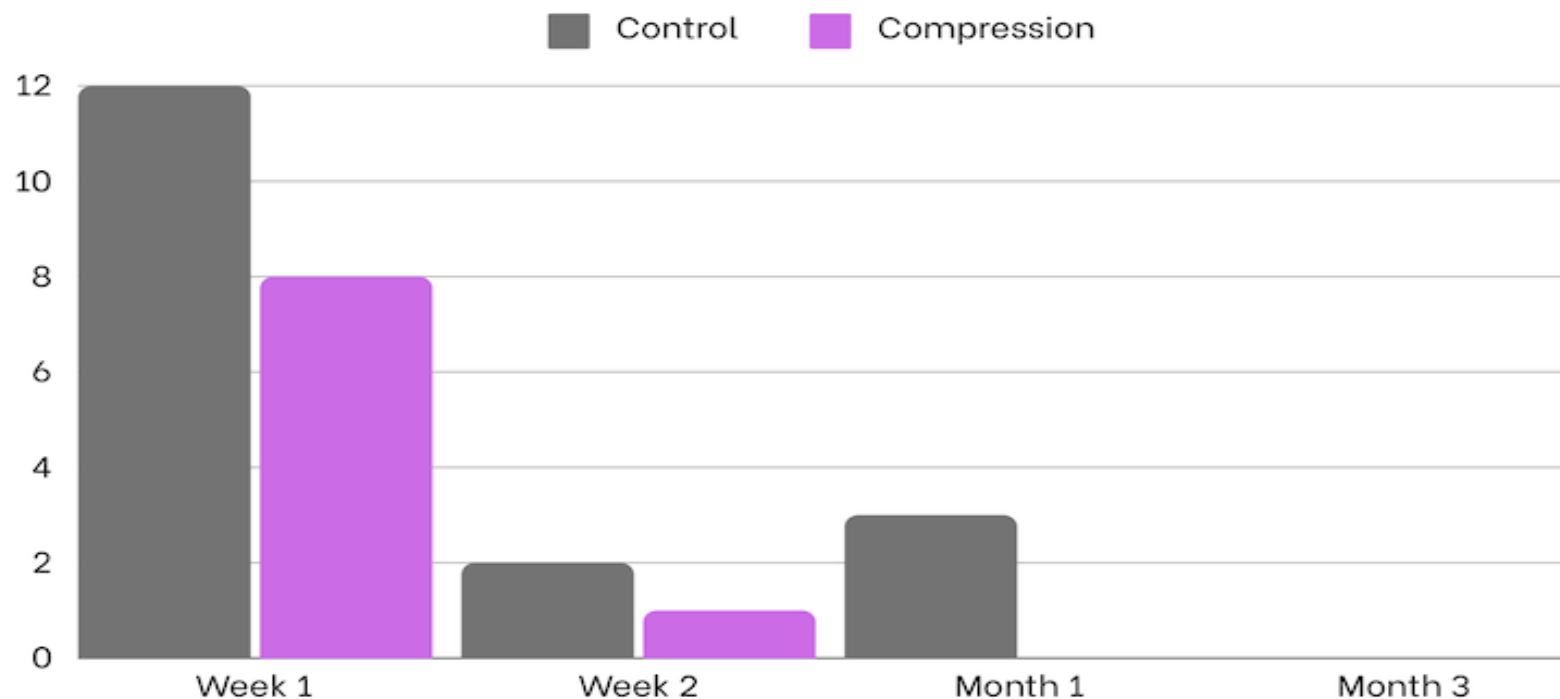
A significant difference was observed between the number of subjects who presented hematoma in week 2, in favor of the group with medi Rehab[®] one. ($p < 0,005$)



Results

Liquid

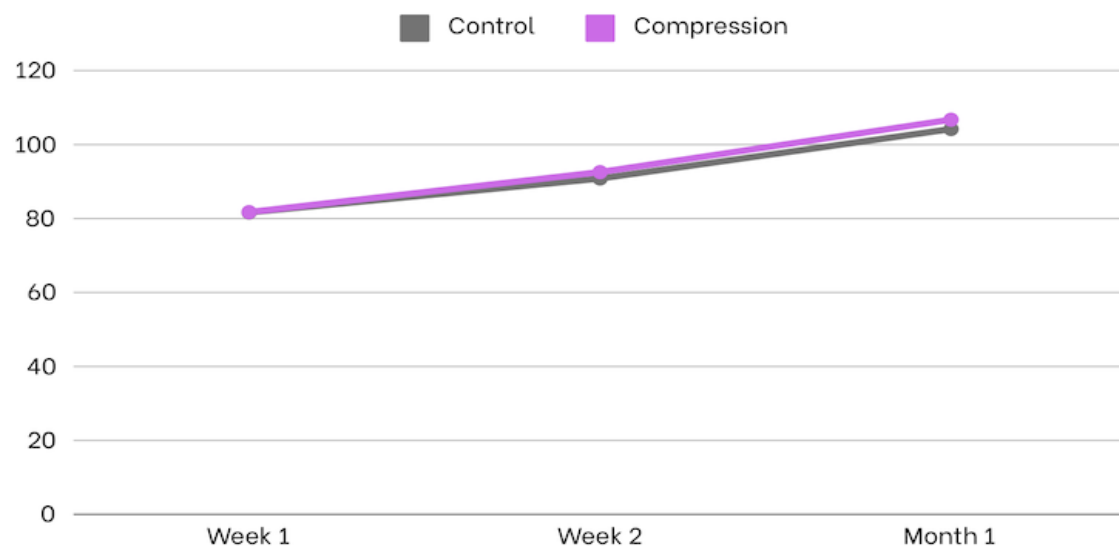
No significant differences were observed in fluid accumulation between the group with and without stocking, although a non-significant trend towards better values could be observed in the group with stocking.



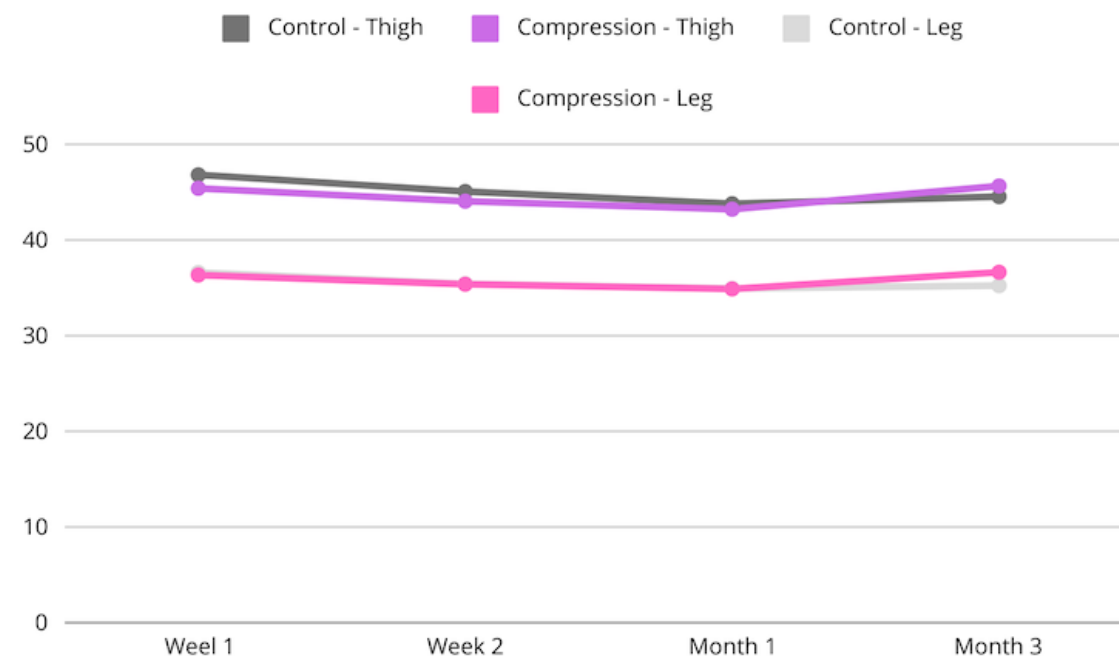
Results

No significant differences

ROM



Thigh perimeter



Conclusions

- The use of Rehab one stockings reduces postoperative pain and hematoma in ACL surgery

References

Elastic stockings or Tubigrip for ankle sprain: A randomised clinical trial Muhammad J. Sultana , Adam McKeowna , Iain McLaughlinb , Nasser Kurdyb , Charles N. McCollum a. Injury, Int. J. Care Injured 43 (2012) 1079–1083

Effects of Wearing Compression Stockings on Exercise Performance and Associated Indicators: A Systematic Review. Gustavo R Mota 1 Mário Antônio de Moura Simim 2 Izabela Aparecida dos Santos1 Jeffer Eidi Sasaki 1 Moacir Marocolo 3. Open Access Journal of Sports Medicine 95.85.71.243 on 27-Feb-2020

A randomised clinical trial comparing the patient comfort and efficacy of three different graduated compression stockings in the prevention of postoperative deep vein thrombosis Hatice Ayhan, Emine Iyigun, Selami Ince, Mehmet Fatih Can, Sevgi Hatipoglu and Mutlu Saglam. Journal of Clinical Nursing, 24, 2247–2257,

Recovery in SoccerPart II—Recovery Strategies.Mathieu Nedelec, Alan McCall Franck Legall, Serge Berthoin, Chris Carling , Gregory Dupont. Sports Med (2013) 43:9–22