

Comparative Study Between Walker Boots & Conventional Plaster Cast In Post Ankle Fusion Rehabilitation

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INTRODUCTION:

Ankle fusion surgery consumes time for healing and post-operative immobilization is of paramount importance as part of rehabilitation management. Walker Boots have been reported to be a successful alternative to POP (Plaster Cast). The aim of the study is to compare the functional recovery achieved by both rehabilitative methods.

METHODS:

45 patients underwent ankle fusion surgery in Hospital Putrajaya between 2014-2017 were reviewed retrospectively. Standardized open reduction & internal fixation were performed for all. Walker Boot (21pts) or Plaster Cast (24pts) was randomly prescribed post-operatively. The time taken for patients to stand unipedal on affected foot after achieving full weight bearing & to walk without crutches were used as main assessment criteria for functional recovery. The prevalence of other factors such as union time, post-op hospital stay as well as VAS were also reviewed.

RESULTS:

There is significant association between Plaster Cast and Walker Boots with p value < 0.05. Patients in PC group have a significantly higher mean post op hospital stay, time to full weight bearing, time to stand unipedal, time to walk without crutches and VAS (score) compared to patients in walking boots group.

Table 1: Analysis using Independent t-test

Variables	Group	Mean	Std.Deviation	P Value
Age	PC	50.38	7.406	0.02
	WB	57.33	6.288	
Duration of surgery (min)	PC	118.8	7.187	0.40
	WB	113.5	9.464	
Post op hospital stay(days)	PC	3.50	0.659	<0.01
	WB	2.52	0.512	
Time to full weight bearing (weeks)	PC	9.17	1.465	<0.01
	WB	6.57	0.870	

Time to stand unipedal (weeks)	PC WB	4.42 1.95	1.060 0.590	<0.01
Time to walk w/out crutches (weeks)	PC WB	5.21 3.33	0.977 0.577	<0.01
VAS (visual analogue score)	PC WB	4.17 2.71	0.917 0.561	<0.01

DISCUSSIONS:

The findings showed a superior functional recuperation of the WB group regardless of age and significantly faster recovery after full weight-bearing allowed.^[1] WB's have an adjustable heel lift that allows users to change the ankle position slightly plantar-flexed that helps walking especially in a post-operative swollen ankle apart from adjusting the ankle position in conformity with swelling & pain.^[2-4]

CONCLUSION:

In summary, we advocate walker boot therapy post ankle fusion as it shows remarkable outcome besides allowing patient to return to normal activity at a swift rate.

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