

# Compression film bandage after leg vein sclerotherapy: Two weeks versus four weeks of wearing.

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## Background

Compression stockings or bandages are not suitable for continuous wearing. Using these media, results of sclerotherapy are often unsatisfactory due to inflammations, residuals and stainings.

A novel compression film bandage (CFB) now underwent evaluation of two weeks versus four weeks of wearing.



Fig. 1: Effect of compression film bandage on superficial varices

## Patients/Methods

In this prospective and randomized study, 450 eligible legs with superficial varicosities, 5 - 16 mm Ø, mean 7.9 mm Ø (354 patients, 23 – 74 yr/o) were included in the study. CFB (prototype 3M/Venartis Inc.) was applied immediately after foam sclerotherapy and worn continuously. Randomization: 6 groups with equal diameter distribution (+/- 0.3 mm): CFB for 14 or 28 days with a renewal after 14 d, CFB plus compression stocking German class 2 for 14 or 28 days day over, and compression stocking alone day over for 14 or 28 days.

Follow-up examinations including ultrasound and photography were performed after 2, 4 and 8 weeks.

Modality	wearing time (days)	n
A) CFB alone	14 d (n=100)   28 d (n=50)	150
B) CFB + MCS	14 d (n=100) + 28 d (n=50)	150
C) MCS alone	14 d (n=100)   28 d (n=50)	150

Fig. 2: Randomization of case to compression film bandage (CFB), CFB combined with medical compression stockings (MCS), and MCS alone

## Results

During 8 week follow-up, symptomatic inflammations, residuals or stainings indurations were observed in the compression stocking group in 62.5% (14 d) versus 51.3% (28 d). There was no difference in the visual aspects of 14 vs. 28 d of wearing. Using CFB, inflammatory symptoms were reduced to 9.3% (14 d) versus 5.3% (28 d) (Fig. 3). Particular benefit of 28 days wearing was related to vein diameters of 8.8 – 16 mm. Wearing comfort was minimally reduced by prolonged wearing (Fig. 4)

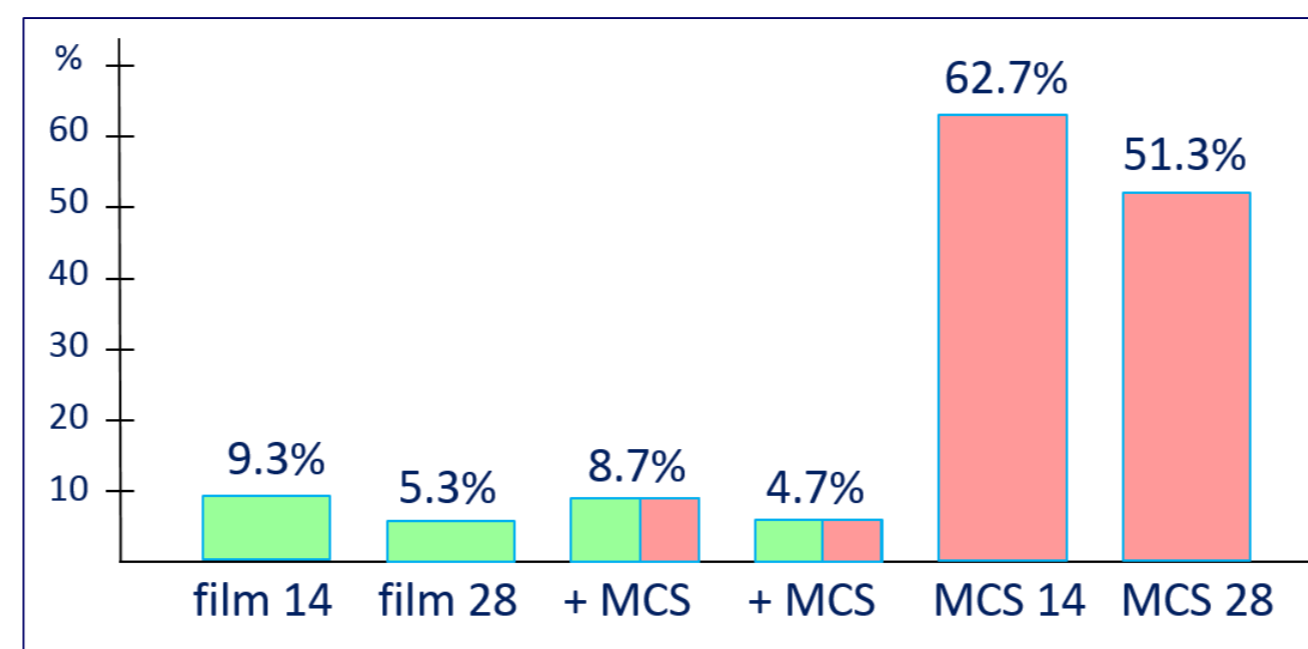


Fig. 3: Incidence of inflammatory symptoms unto week 8

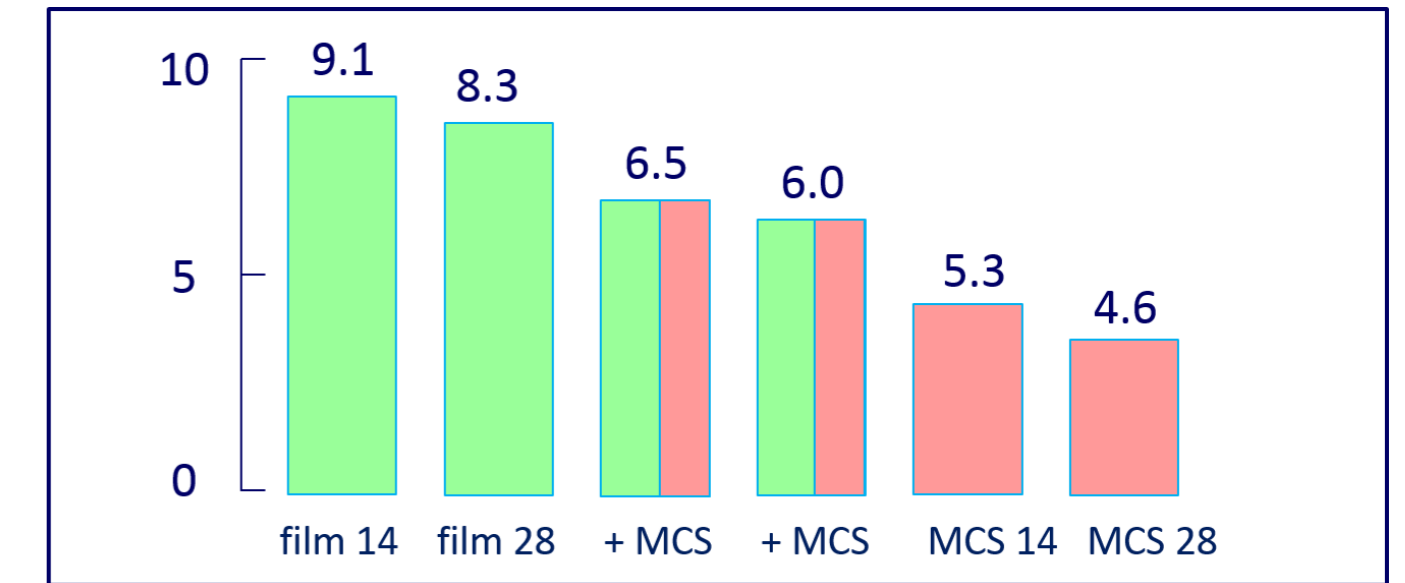


Fig. 4: Comfort of compression modalities, rated on a 10-degree scale (1 = tolerated in spite of pain, 10 = no perception)

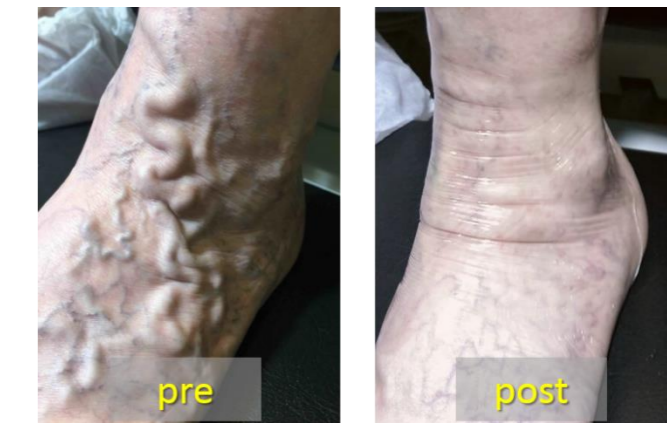


Fig. 5: Case example of varices pre and post film compression bandage

## Conclusions

For all these modalities, four weeks of wearing are slightly more effective in the limitation of inflammatory symptoms or residuals than two weeks. In the same way, four weeks of wearing are slightly less comfortable than 2 weeks. In conclusion, prolonged wearing of compression media should be considered for superficial varices above 8 mm in diameter, with clear advantage for CFB alone or combined with MCS.

### Literature

Ragg JC. Film compression bandage: a new modality to improve sclerotherapy of superficial varicosities. *Veins and Lymphatics* 2017, volume 6:663  
Work Group Dr. Ragg: [www.venartis.org](http://www.venartis.org)

