

* In order to facilitate the perusal of this bulletin by the reader the literature is classified as follows: *Literature*: Chapter Compression book; *Lit.*: number of reference from the literature/number of self-quotations; *Publ.*: content of publications; *Lang.*: language of publication (like country registration for cars); *Sum.*: language of the summary

Partsch H, Blättler W.:

Compression and walking versus bed rest in the treatment of proximal deep venous thrombosis with low molecular weight heparin

J Vasc Surg 2000; 32: 861 – 69

Background

Home-treatment of selected patients with deep vein thrombosis (DVT) had been advocated in numerous papers but no clear recommendations concerning physical activity and the use of compression are given. Brandjes and coworkers showed that wearing of compression stockings is able to reduce the late sequelae of postthrombotic syndrome after several years (Lancet 1997;349: 759-62). However, in this study compression was initiated only 9 days after admission of the patients because of deep vein thrombosis and no information about any positive effects in the acute stage can be given. Up to now acute DVT is listed as a contraindication for medical compression stockings by most of the manufacturers.

Objective

The purpose of this randomized controlled trial was to evaluate the benefits of compression bandages and compression stockings together with walking exercises in comparison with bed rest in the acute stage of DVT.

Methods

Forty-five patients with proximal DVT proven with compression ultrasonography or phlebography were randomized into three groups. Group A consisted of 15 patients who received inelastic compression bandages (Unna boots wrapped over with short stretch bandage on the lower leg, adhesive short stretch bandage over the knee and up to the groin). Group B consisted of 15 patients who received thigh-length compression stockings class II (Sigvaris 503). Group C consisted of 15 patients who underwent bed rest for 9 days and no compression. All patients received dalteparin, 200 IU/kg body weight, subcutaneously every 24 hours. The clinical characteristics of the three groups were comparable. Parts of the thrombi as detected by MRI reached into the coval vein in two patients, one in group B and one in group C.

Primary end points were the reduction of pain assessed daily with Visual Analogue Scale and by a modified Lowenberg test, the reduction of leg-circumference at the calf

and ankle levels, and the improvement of clinical scores. The daily walking distance was measured with a pedometer. Safety parameters were ventilation perfusion scans of the lungs and duplex ultrasound scans performed on days 0 and 9.

Results

The daily walking distance was between 600 and 12,000 meters in the compression groups. The pain level showed a statistically significant reduction starting after the second day in the compression groups (A and B) and after 9 days in the bed rest group C ($p < 0,05$). The same was true for the measurement of leg circumference. Improvement of the clinical scores was significantly better in the compression groups compared with the bed rest group ($p < 0,01$). There was no significant difference concerning the occurrence of new pulmonary emboli and regression of thrombus diameter. Progression of thrombi in the femoral vein was greater and occurred more frequently in the bed rest group than in the two other compression groups (n.s.)

Conclusion

Mobile patients with acute proximal DVT treated with low molecular weight heparin should be encouraged to walk with compression bandages or high quality medical compression stockings class II. For those centres who are not well trained in the application of firm, inelastic compression bandages medical compression stockings which can be applied also by the patient may be a good alternative. The rate of resolution of pain and swelling is significantly faster when the patient ambulates with compression. The risk of pulmonary embolism is not significantly increased by this approach.

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Klücken H, P Voiß, G. Gallenkemper, T. Höller, E. Rabe

Akzeptanz verschiedener Therapieformen in der Phlebologie (Acceptance of different therapies in phlebology)

Phlebologie 1999; 28: 169-174

Background

The clinical efficacy of compression therapy in chronic venous insufficiency (CVI) is widely recognised. But also the acceptance and compliance of patients play an important role in treatment of CVI.

Purpose

The aim of this multicenter patient survey was to assess the patients acceptance of different treatment modalities performed in the past. Patients were asked for their expectation for the future concerning subjective symptoms like pain, swelling and feeling of heaviness. They were also asked for their subjective feeling of improvement after different therapies like compression, operation and sclerotherapy.

Subjects and methods

Especially for this study a multi-choice-questionnaire was created. The answers of 235 patients were examined.

Results

The highest subjective improvement of symptoms occurred in patients treated with compression therapy or by varicose

vein surgery. By asking to repeat treatment 95% of patients answered positively for compression therapy, 88,9% for drug therapy. 84,1% for venous surgery and 67,9% for sclerotherapy.

The patients expectations concerning subjective symptoms like pain, swelling and feeling of heaviness increases with progression of CVI whereas the cosmetic results becomes less important.

Conclusions

The results of this study show the high acceptance of compression by patients with chronic venous insufficiency (CVI). Especially patients with severe CVI, assessed the compression therapy as very successful, due to increased mobility and reduced pain and swelling. *

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Weiss RA, NS Sadick, P Goldmann, MA Weiss

Post-Sclerotherapy Compression: Controlled Comparative Study of Duration of Compression and its Effects on Clinical Outcome

Dermatol Surg 1999; 25: 105-108

Background

There are only a few studies about duration of compression following sclerotherapy of telangiectatic webs associated with reticular veins.

Purpose

To develop a controlled prospective study comparing the effects of different durations of compression therapy following sclerotherapy of reticular veins and telangiectases.

Subjects and methods

In total 40 patients were included in this study. 30 patients who received compression therapy and 10 control patients without any compression. 10 patients in the compression group used pantyhose class I for 3 days, 10 patients for 1 week and another 10 patients for 3 weeks. Patients were evaluated at 1 week, 2 weeks, 6 weeks, 12 weeks and 24 weeks for degree of improvement and side effects.

Results

There was a significant greater improvement at 6 weeks in the 3 compression therapy groups. There was a correlation between the length of time compression was performed and the degree of improvement in the clinical follow-up. The compression groups showed also significantly less post-sclerotherapy hyperpigmentation after 1 and 3 weeks.

Conclusion

This study demonstrates the beneficial effect of compression following sclerotherapy of telangiectatic webs associated with reticular veins in a statistically significant way. These effects are correlated to the duration of compression. Three weeks of continuous compression leads to the best results. Another important point is the significant reduction of post-sclerotherapy hyperpigmentation by compression therapy.

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