

Review and commentary of key non-JVS-VL articles

Is copper a miracle agent?

Impact of Copper Compression Stockings on Venous Insufficiency and Lipodermatosclerosis: A Randomised Controlled Trial



Arendsen LP, Vig S, Thakar R, Sultan AH. *Phlebology* 2018 Aug 27. [Epub ahead of print]

Conclusions: Copper can now be impregnated into any sock, bandage, or wrap. However, copper-infused compression stockings did not improve symptoms in patients with chronic venous insufficiency (CVD) and lipodermatosclerosis (LDS) compared with noncopper stockings.

Summary: LDS is a late manifestation of CVD insufficiency involving cellulitis, hyperpigmentation, induration, and constricted skin and is associated with a higher risk of ulceration. Both the United States and the United Kingdom (through its National Health Service) spend millions of dollars on the care and treatment of venous ulcers, with patients losing work days as well. This study investigated the utility of copper-impregnated compression stockings in patients with LDS and CVD. Eighteen patients with bilateral severe (C4-C6) CVD wore stockings in which each pair contained one stocking with 2% to 3% copper oxide ions and one was nylon only, with left and right legs randomized. Both patients and physicians were blinded as to which side was the copper-infused stocking. Venous scoring and wound measurement tools were used to document baseline symptoms and outcomes. After 2 weeks, the surface area of the affected skin was significantly reduced in the copper group, but there was no difference in symptoms at 8 weeks.

Comments: Is copper a miracle element? The antimicrobial properties of copper are known, but in this study, copper-impregnated stockings failed to significantly improve CVD symptoms compared with plain stockings. Perhaps any improvements were due to compliance with compression alone.

Can you see me now? Deep venous thrombosis imaging guidelines

Ultrasound for Lower Extremity Deep Venous Thrombosis: Multidisciplinary Recommendations From the Society of Radiologists in Ultrasound Consensus Conference



Needleman L, Cronan JJ, Lilly MP, Merli GJ, Adhikari S, Hertzberg BS, et al. *Circulation* 2018;137:1505-15.

Conclusions: Standardized testing and reporting will improve diagnosis, treatment, and follow-up of patients with suspected deep venous thrombosis.

Summary: A multidisciplinary group of experts, sponsored through the Society of Radiologists in Ultrasound, evaluated ultrasound protocols for deep venous thrombosis and proposed these guidelines for standardized point-of-care testing and terminology. These recommendations streamline the protocols yet provide a comprehensive scanning practice and improve capture of calf vein thrombi. Consistent terminology is recommended.

Comments: This panel recommends a comprehensive duplex ultrasound protocol from thigh to ankle with Doppler interrogation at selected sites rather than a limited or complete compression-only examination. What is fabulous about these recommendations is that the protocol is not new; it is performed at many facilities and does not require capital investments or training. This protocol can be performed by standard ultrasound equipment and personnel.

Is all reflux considered equal?

Vein Size and Disease Severity in Chronic Venous Diseases



Radhakrishnan N, George D, Jayakrishnan R, Sumi S, Kartha CC. *Int J Angiol* 2018;27:185-9.

Conclusions: Given the prevalence of chronic venous insufficiency and frequency of interventions, defining criteria and indications for those who may benefit most is key.

Summary: This is a retrospective study of >6300 patients who were reviewed for demographics and risk factors, specifically the correlation between vein diameter and symptom severity. Almost 47% of patients were assigned to C3 or higher classification. Interestingly, patients who had varicose veins and smaller diameter superficial veins had 2.85-fold more risk of edema and 5.71-fold higher prevalence of hyperpigmentation compared with patients who had varicosities associated with truncal reflux. Varicosities in small superficial veins were associated with higher risk of ulceration (odds ratio, 3.93; 95% confidence interval, 2.51-6.18) compared with truncal vein reflux.