

Chronic Venous Disease (CVD) and Venous Dermatitis: Management with a Dual Compression System (DCS)* A Case Series

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INTRODUCTION

CVD affects approximately 25% of the U.S. population, often progressing from leg heaviness and itching to edema, dermatitis, and ulceration. Early recognition and treatment can prevent disease progression. However, many patients with CVD suffer for extended periods due to misdiagnosis or delayed referrals.

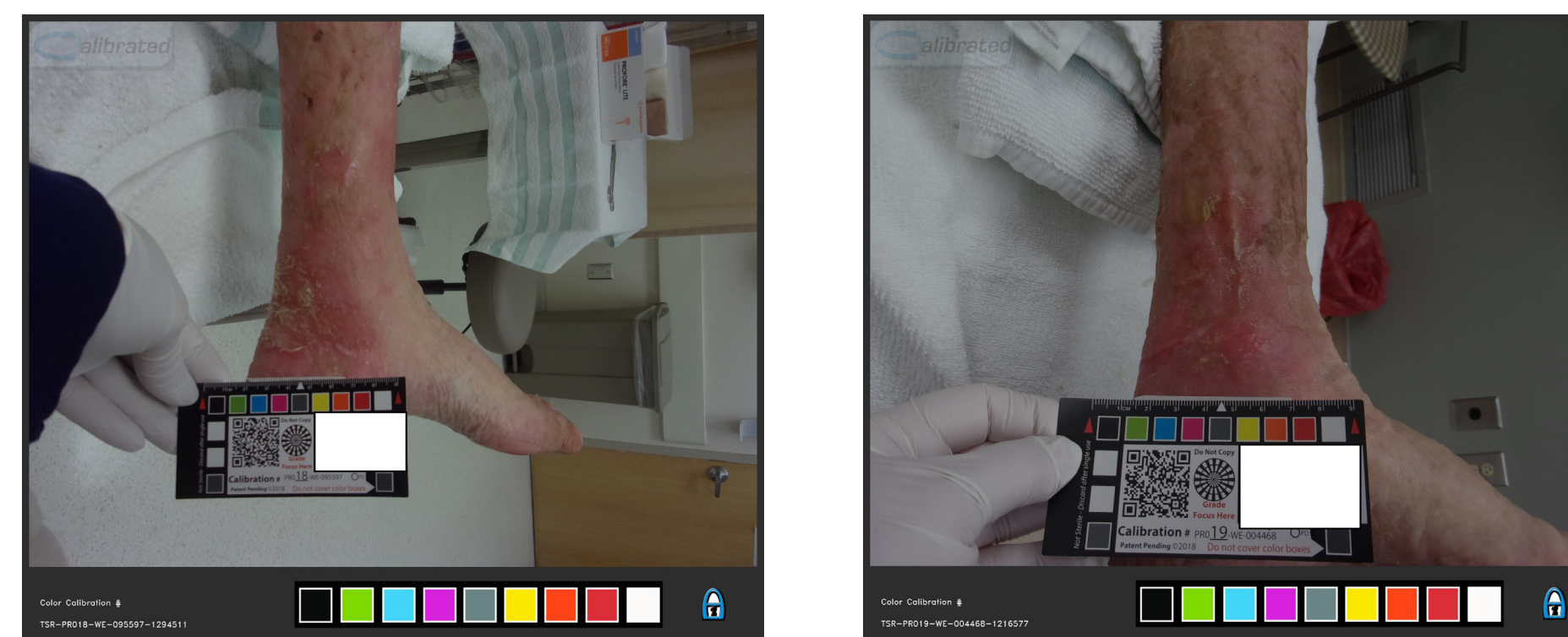
Venous dermatitis, a common manifestation of CVD, can mimic other dermatological conditions, delaying diagnosis. This case series highlights the challenges of recognizing and treating venous dermatitis, in part, with compression using a kit (the Dual Compression System, DCS*) that contains both a short stretch and a long stretch bandage. This DCS is supported by high level evidence supporting CVD and/or venous ulcer management, including a randomized control trial (RCT).

METHODS

Case 1: A 67-year-old man with hypertension and a history of smoking presented with 3-month persistent venous dermatitis. Despite antibiotic and steroid treatments, the condition worsened. A wound center and vascular evaluation revealed no arterial disease or venous reflux. A compression therapy regimen and walking program led to healing within 3 weeks.



Case 2: A 72-year-old woman with diabetes, hypertension, and arthritis experienced intermittent venous dermatitis for 5 months. Despite medical interventions, including antibiotics and a cellulitis related hospitalization, the condition persisted. A wound center with vascular referral evaluation identified venous reflux, and a compression therapy regimen resulted in healing within 3 weeks. Venous reflux was treated with ablation post healing.



Case 3: 53-year-old woman with severe osteoarthritis and morbid obesity experienced weeping dermatitis for 2 years. A wound center and vascular evaluation revealed venous disease with normal arterial flow. Compression therapy initiated with referral to physical therapy to improve mobility. Dermatitis resolved in 1 month.



RESULTS

In all 3 cases (Figures 1, 2 and 3), the venous dermatitis was resolved in less than 1 month after it was appropriately diagnosed and treated.

DISCUSSION

These cases emphasize the importance of early CVD diagnosis and treatment. Venous dermatitis, whether accompanying venous reflux, or not, is often a precursor to more severe complications, can be effectively managed with a multi-faceted approach, including compression therapy, lifestyle modifications, and, in some cases, surgical intervention. The reason why therapeutic compression may resolve venous dermatitis may be two fold.

Better lymph drainage: Therapeutic compression can alleviate phlebolympheidema, which is lymphedema linked to chronic venous disease (CVD). Additionally, by preventing the buildup of stagnant lymph fluid and its potentially harmful components, compression may help manage dermatitis associated with impaired lymphatic drainage, thereby improving the health of the overlying skin.

Microarterial vasodilation at dermal and subdermal level: While compression therapy may reduce the diameter of veins and microveins, potentially reversing chronic venous disease (CVD), some evidence suggests it can simultaneously cause microarteriolar vasodilation at the dermal and subdermal levels. This seemingly paradoxical effect is likely due to the physiological response of the calf and leg musculature, and surrounding tissues to compression.

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