Compression Therapy Challenges: Intriguing Case of Recurrent Venous Leg Ulcers in Chronic Venous Insufficiency

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INTRODUCTION

- Chronic venous insufficiency (CVI) is often associated with risk factors such as age, female sex, high BMI, tobacco use, family history, sedentary lifestyle, and use of oral contraceptives.
- In rare cases, CVI may lead to venous leg ulcers (VLUs), which account for approximately 60-80% of all leg ulcers.[2]
- Compression therapy is the 1st line treatment to prevent VLUs in CVI patients.
- With Florida's aging population and the increased barriers in maintain adherence in the elderly population, primary care physicians may increasingly observe VLUs resulting from CVI.

IMAGE: VENOUS LEG ULCER

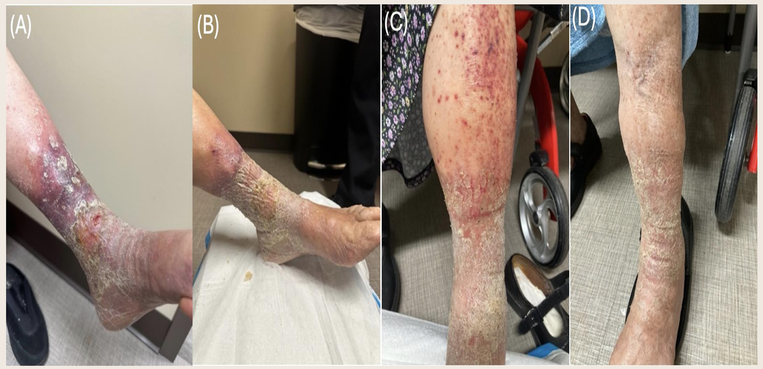

Image 1. Physical exam findings. Day 10 indicating stage 4 VLU (A). Day 22 indicating stage 3 VLU (B). Day 101 indicating resolving VLU with strict compression therapy (C). Day 104 indicated stage 1 VLU with strict compression therapy (D).

CASE PRESENTATION

- **Day 10:** An 88-year-old Hispanic female presented to the office with increased left lower leg tenderness and purple-red discoloration for 10 days. The patient's past medical history included CVI, cardiomyopathy, hypertension, left-sided hemiplegia post-cerebral infarction, and osteoporosis.
- Physical examination noted varicosities on the shins and calves bilaterally with a stage 4 ulcer on the superomedial aspect of the medial malleolus approximately 1 cm in diameter with purulent discharge and mild granulation tissue. The management plan included application of compression bandages until her next visit.
- **Day 22**: Patient presented for a follow-up with improvement of ulcer to a stage 3. Patient instructed to maintain compression therapy indefinitely and come for visits every 2 weeks.
- After approximately 60 days of non-adherent compression therapy, the patient presented with increased lower left leg tenderness, skin flaking, skin discoloration, and new stage 2 VLU. Patient was immediately scheduled for weekly visits.
- **Day 101/104:** After approximately 30 days of strict continuous compression therapy, the ulcer diminished to a stage 2 and eventually a stage 1 ulcer. Regular follow-up visits were scheduled to ensure proper application of compression therapy and continuation of patient education.

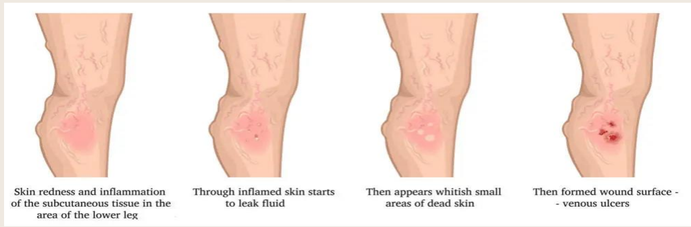

Image 2. Staging of Venous Ulcers[6]

DISCUSSION

- Compression therapy with medical stockings remains the gold standard for managing CVI.
- Patients with VLU achieve a 40% ulcer healing rate within three months.[2, 3-4]
- Lymphatic osteopathic manipulative treatment (OMT) protocols, including techniques such as myofascial thoracic outlet release, are a potential treatment, with wound surface area decreasing by an average of 4.9 cm^2/week.[1]
- With 80% of patients experiencing recurrent VLUs within three months post-healing and fewer than 33% adhering to compression therapy, there is a gap in ensuring regular follow-ups and patient education regarding the importance of continued compression therapy, particularly in elderly patients.[2,6]

CONCLUSION

- Our case underscores the role of a comprehensive physical examination and strict use of compression therapy in managing CVI and VLUs. Regular follow-up, patient education, and addressing adherence challenges is critical to managing CVI and preventing VLU development and recurrence.

REFERENCES