

DECIDING BETWEEN A HEEL CAST AND A DIABETIC BOOT CAST: A COMPARATIVE ANALYSIS FOR TREATMENT SELECTION

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Managing wounds, particularly in the lower extremities, remains a critical challenge in clinical practice, especially for patients with comorbidities like diabetes or vascular conditions. Offloading casted devices are used to promote wound healing, reduce pressure, and prevent complications. However, selecting the most appropriate device requires balancing patient comfort, wound characteristics, and treatment outcomes. This case study explores the use of a soft heel cast versus a diabetic boot cast to offload a plantar heel wound.

MEDICAL HISTORY

- Female, 55 years
- Type 1 diabetes since 1990 with microvascular complications; neuropathy and retinopathy
- Right Foot Charcot, 2013
- Autoimmune hepatitis with related cirrhosis and portal hypertension
- Left heel ulcer with previous soft tissue debridement
- Chronic venous insufficiency and lymphoedema
- Lipoedema
- Gastroparesis

METHOD

This comparative analysis involved offloading the plantar heel ulcer with a heel cast initially and then a diabetic boot cast. Key outcome measures included reduction in ulcer size at 4 weeks, patient mobility, comfort levels, and associated complication.



RESULTS

	Outcome Measure	Heel Cast	Boot Cast
Device	Comfort	No concerns reported	Heavy to walk
	Removable	Yes	No
Patient	Affected ADLs	No	Yes
	Mobility	None reported	Reduced
	QoL - pain	No	Yes (hips and lower back)
Ulcer	Reduction in size at 4 weeks	11%	86%
	Infection	No	No
	Deterioration of ulcer site	No	No

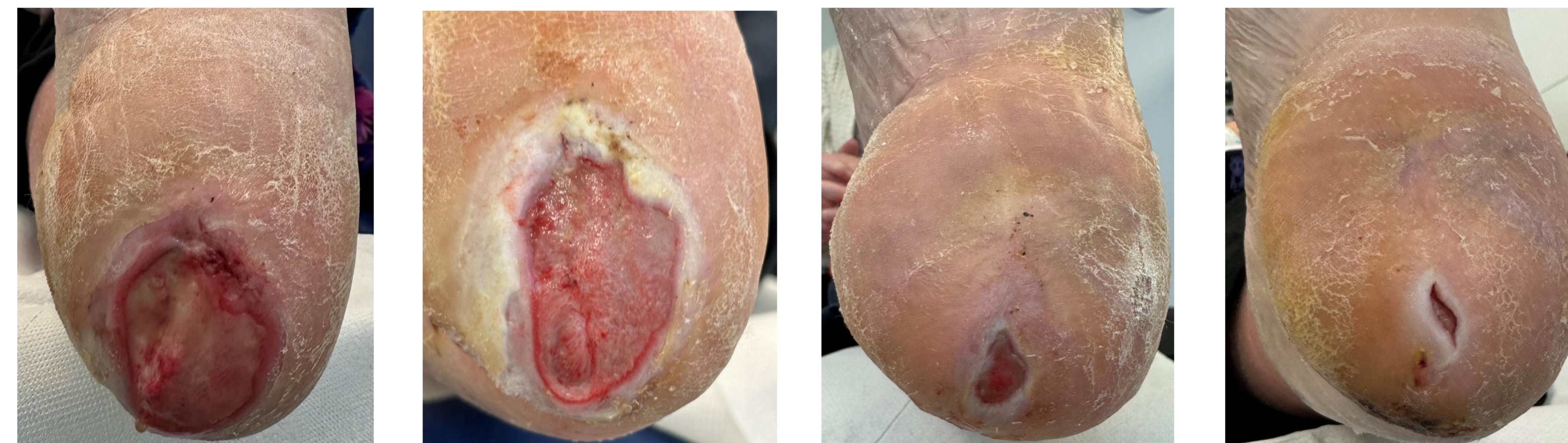
DISCUSSION AND CONCLUSION

This comparative analysis highlights the importance of personalized treatment involving the patient throughout their wound healing journey.

While diabetic boot casts may offer advantages in accelerating wound healing, particularly in severe cases, the patient's mobility and comfort must be carefully weighed. Heel casts, while less effective in promoting rapid healing, offers a more comfortable and flexible option for patients who need to maintain mobility.

The study suggests that clinicians should consider both clinical and personal factors when selecting between these offloading devices, tailoring treatment to individual patient needs and preferences. The diabetic boot cast can also be made removable should the dressings require changing more than once weekly due to the exudate levels.

Further research is needed to explore long-term outcomes and to identify additional factors that may influence device selection in various patient populations.



Heel cast worn; initial assessment to week 4

Diabetic boot cast worn; from week 4 onwards with week 8 and 12 presentations



Non-removable



Removable

