



## Retrospective Cohort Study



All patients with a primary active VLU, in the presence of superficial truncal venous incompetence

## Aim

To analyze the impact of frailty on the outcomes of patients undergoing treatment for VLU.

## Methods

Between 2012 and 2022, all patients presenting with a primary VLU were analyzed. Inclusion criteria were all patients with superficial truncal venous incompetence and without total deep venous incompetence on duplex imaging. Frailty was assessed by the Simple Vascular Quality Initiative-Frailty Score (sVQI-FS; CHF, renal impairment, COPD, not living at home, not ambulatory, anemia, and underweight status). An sVQI-FS score of 0.3 or greater was considered frail. Demographics and interventions to effect healing were recorded. The primary outcomes were ulcer healing at 24 weeks and recurrence within one year

## Outcomes

819 patients (47% male, age  $64 \pm 11$  years, mean  $\pm$  SD) presented with an active VLU to the wound care center and/or vascular clinic. 31% had their ulcer for  $\geq 12$  months. Of these, common comorbidities included obesity (62%), cardiac disease (35%), diabetes (31%), a history of deep vein thrombosis (DVT) (23%) and varicose veins (45%). Studies demonstrated that 78% had LSV incompetence, 33% had SSV incompetence, and 11% had perforator incompetence. 43% of the patients were considered frail. Frail patients were more likely to have an ulcer longer and have a longer interval before referral compared to non-frail patients. The presence of frailty resulted in longer healing times and increased recurrence of the VLU (Table 1).

**Table 1 Outcomes**

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sVQI-FS	Non-Frail	Frail	P-Value
Patients (n)	450	369	
Charlson Comorbidity Index >3	51%	76%	0.01
Ulcer Healing @ 24 weeks	71%	50%	0.01
Recurrence @ 1 yr	26%	31%	0.05

## Conclusions

Frailty significantly affects early referral for care and impacts healing rates and recurrence rates. Intervening to ameliorate frailty and increasing awareness that frailty is not a contraindication to advanced venous care are necessary to enhance VLU care in frailty.