



To evaluate ulcerated leg severity assessment score [ULSA] for prediction of venous ulcer healing

Authors

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Abstract

The need of the study is to predict the healing of venous ulcers, identify the patients who actually need surgical intervention and to predict the average healing time required for venous ulcer. Because venous ulcer is a big burden to the patient. Furthermore the ulcer often recurs when the patient returns home and resume lifestyle, so we are using this scoring system to categorize the patient actually need surgical intervention for patients coming to Sri Siddhartha Medical College Hospital.

Aim

To evaluate ULSA (Ulcerated leg severity Assessment Score) scoring system in predicting venous ulcer healing with non surgical modality of treatment

Objective

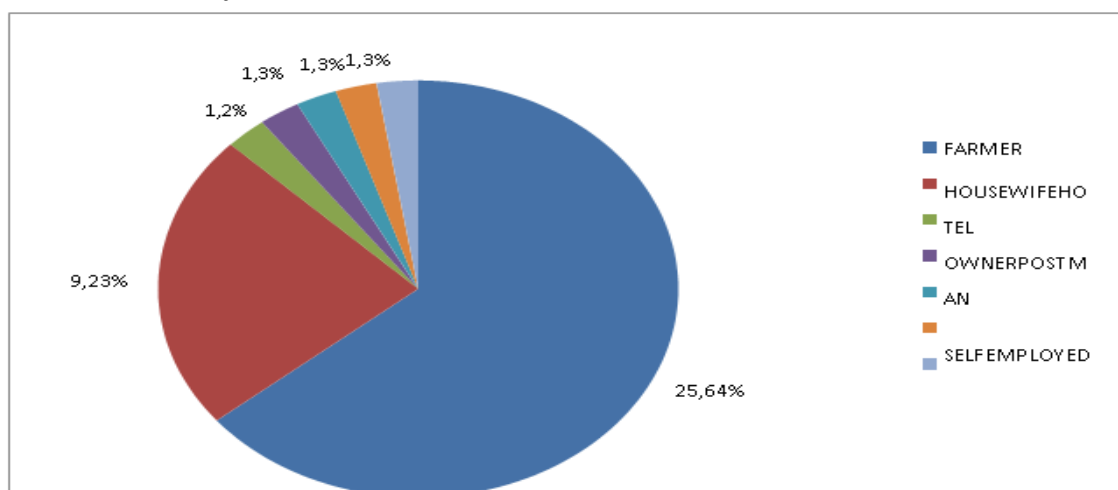
- To categorize the venous ulcer patients with ULSA system for clinical management.

- To correlate the scoring system with outcome of the following management.

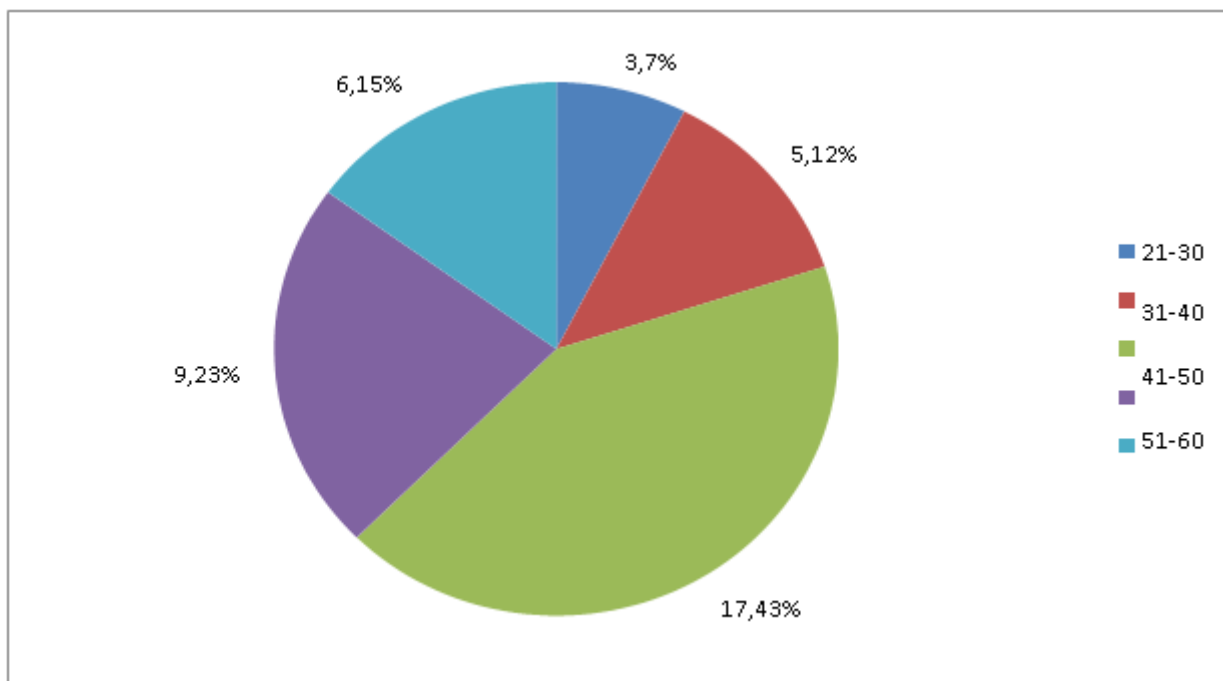
Materials and Methods

39 cases of varicose veins of the lower limb with venous ulcers were studied using ULSA score and were prospectively analyzed over a period of 18 months in surgical wards of Shri siddhartha medical college hospital

Occupation and Varicosity



Age wise Distribution



ULSA Score, Duration and Healing

ULSA Score	Healing duration				TOTAL	Chi square P value
	1-10 weeks (N=10) No (%)	11-20 (N=16) No (%)	21-30 (N=9) No (%)	31-40 (N=4) No (%)		
< 20	10	14	0	0	24	Less than 0.05 (NS)
21-40	0	2	9	1	12	
41-60	0	0	0	3	3	

Discussion

- Venous leg ulcers are the most common leg ulcers, with prevalence of 1.69% in the elderly population.
- Venous leg ulcers [VLU] are linked to venous insufficiency a slow progressing chronic disease. They are chronic and recurrent by nature, with associated morbidity and reduced quality of life.
- Therefore multiple factors needed to be considered for proper assessment and treatment.
- In our study 39 cases of varicose vein with venous ulcer of lower limb for a period of 18 months [November 2019 to may 2021]. The data was based on age, occupation, size of ulcer, ULSA score was calculated.
- In this series of 24 patients who scores were less than 20 healing was fast compare

to score to patients with score more than 20 which took longer time to heal.

- In our study done on 39 patients, based on ULSA scoring system, if ULSA score is less than 20 the healing is faster.
- In a study conducted by Premkumar et al 2016, Patients with a low ULSA score had faster healing rates when compared to those with high scores. Majority of cases with ULSA score less than 20 healed within 24 weeks, while those with more than 60 never healed at 24 weeks.
- Study conducted by S.R. kulkarni et al 2007, In the baseline study of 229 patients, patient age, ulcer chronicity and venous refill time (VRT) of 20 s or less were identified as risk factors. Using these factors and hazard ratios from the Cox regression analysis, the following formula

was devised: Ulcerated Leg Severity Assessment (ULSA) score=age+ chronicity-50 (when VRT is greater than 20 s). Patients with an ULSA score of 50 or less had higher 24-week ulcer healing rates than those with higher scores in both the baseline study ($P<0.001$, log rank test) and the validation study performed in 86 patients ($P=0.007$, log rank test).

- The findings in our study correlate with the study done by premkumar et al and Kulkarni et al. In all the studies the patients with ULSA score less than 20 had faster healing compared to patients with ULSA score more than 20 and the patients were managed by non surgical modality.
- This study shows that ULSA SCORE helps to categorize patients with venous ulcer to predict the ulcer healing and managed conservatively.

Conclusion

Among the 39 cases of varicose veins with venous ulcers of the lower limb studied in this series from November 2019 to May 2021, those with a low ULSA score at the time of presentation healed earlier than those with high scores. Patients with ULSA score less than 20 had completely healed in 20 weeks and ulcers with scores more than 20 took longer time to heal more than 20 weeks.