

EFFECTIVENESS OF ULTRASOUND DEBRIDMENT IN THE TREATMENT OF VENOUS LEG ULCER

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Aim: To evaluate the effectiveness of ultrasonic debridement with the Curasonic* ultrasonic brush in patients with leg ulcers at the Dermatovenereology Clinic, University Medical Centre Ljubljana.

Methods: 5 patients (2 M and 3 F) (average age 71.2 years) with 10 venous leg ulcers were included in the study, one patient also had lymphedema at the same time. Average duration of ulcers were 36.6 months.

The total size of all ulcers before therapy was 506.25 cm². Ulcers bed were initially classified according Falanga's classification as: four C3, one C2, two B3, two B2, and one A2. In the study, we performed ultrasound debridement of one half of each wound

after toileting the ulcers. During ultrasound debridement, pain averaged VAS 3.6. Alginat dressings were applied to all ulcers and compression therapy was applied.



Results: After one week after debridement, all ulcers showed progress in healing on both halves. The ulcers measured a total of 416 cm². The half of the ulcer bed treated with an ultrasonic brush for debridement was evaluated according to Falanga's classification with: one B3, three B2, five A2, one A1; half of ulcers, where debridement was not performed: one C2, one B3, four B2, one B 1, three A2. In three ulcers, mature islands of skin were present in the half where debridement was performed.



	Duration month	Cm before th.	Wound bed before th	VAS during procedure	Cm after 1 week	Wound bed after 1 week
1	18	2,5x5 12,5	100% fibrin C 3	5	2,3x2 4,6	A2/B2
2	18	1,5x1 1,5	100% fibrin C 3	4	1,5x1 1,5	A2/A2
3	18	14,5x21 304,5	C3	3	14,5x19 275,5	B3 C2
4	18	4x5 20	A2	3	4x4,5 18	A1/A2
5	18	6x4,5 27	B3	3	5x4,5 22,5	B2/B3
6	18	2,5x3,5 8,75	B2	3	2x3 6	A2/B1
7	120	14x4 56	B3	1	13,8X4 55,2	B2 B2
8	19	5x2 10	C2	5	4x1,5 6	A2/B2
9	19	2X1 2	B2	5	2x1 2	A2/A2
10	8	7x4 28	C3	4	6,5x3,8 24,7	B2 B2
	36,6 m	50,625 Cm2		3,6	41,6 Cm2	





Conclusion: In our opinion, the ultrasonic debridement brush has a dual effect: it is not only effective in removing debris, but also accelerates the healing of ulcers through ultrasonic action.