The effects of hydrophilic polymer membrane dressing on the wound healing after vascular/endovascular treatment

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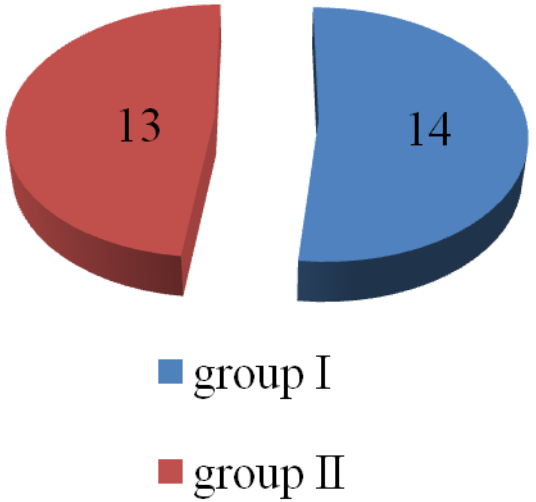
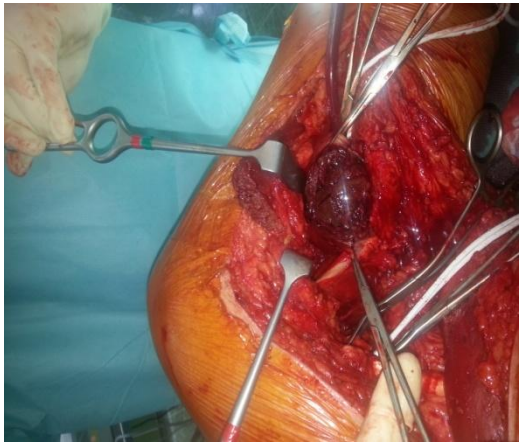
Aim: Vascular surgery in patients with critical ischemia and wounds are loaded prolonged postoperative course, slow-healing wounds and risk of limb loss. The goal was: to compare the wound healing rate and the intensity of pain patients treated with hydrophilic polymer membrane dressing.

- **Methods: A total of 27 patients enrolled in the study. Were done and vascular / endovascular surgery with additional necre-ctomy, minor or major ampu-tations. Patients are divided into two groups: Group I (GI) – posto-peratively treated with hydrophilic polymer membrane dressing, and Group II (GII) - postoperatively treated with other types of dressing. Group I has 14, Group II 13 patients.We measured dynamic of resizing wounds-to wound healing. The intensity of pain was measured by visual analog scale (VAS). We compared the number of dressing changes to healing wounds.**





group	*male %*	*age (year)*	*vascular/endovascular (%)*	*wound size < 3 cm*	*wound size > 3 cm*	*prezents of infection %*
G I	65 %	71	60/40%	49 %	51%	71 %
G II	62%	69	62/ 38%	52%	48%	74%

Table 1. descriptive statistic of both groups (p> 0,05 non significant)

- **<u>Results</u>: There were no significant statistically differences in groups by gender, age, type of surgery, wound size and the presence of infection. The wounds are healed in GI 35, and GII 40.9 days (p> 0.05). Size of pain was measured by VAS scale is initially in the GI and GII was 7.3. After 7 days a GI pain by VAS was 3.8, while in GII 5. After 10 days in the GI pain by VAS was 0, 3 in GII (p <0.05). The "number of dressing changes to healing the wounds" in GI, we had an average of 7 and G II 15.1 (p <0.05).**

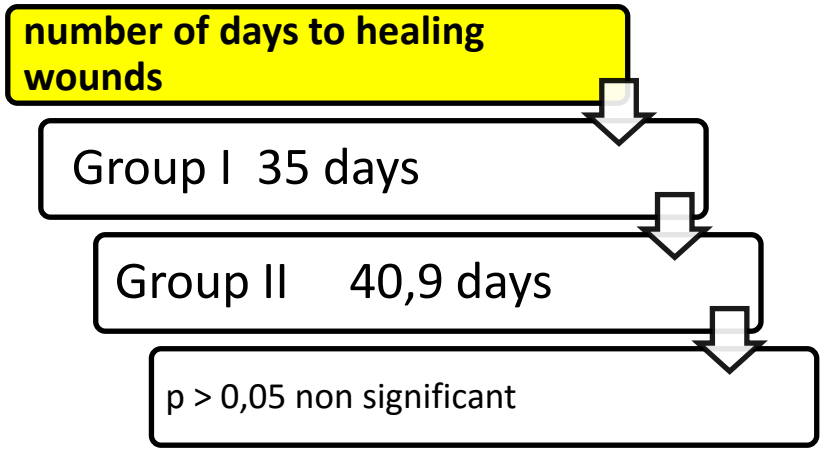
days of therapy	**Group I VAS scale**	**Group II VAS scale**
beginning the therapy	**7,3**	*7,3*
after 7 days	**3,8**	*5*
after 10 days	**0**	*3*

p <0,05

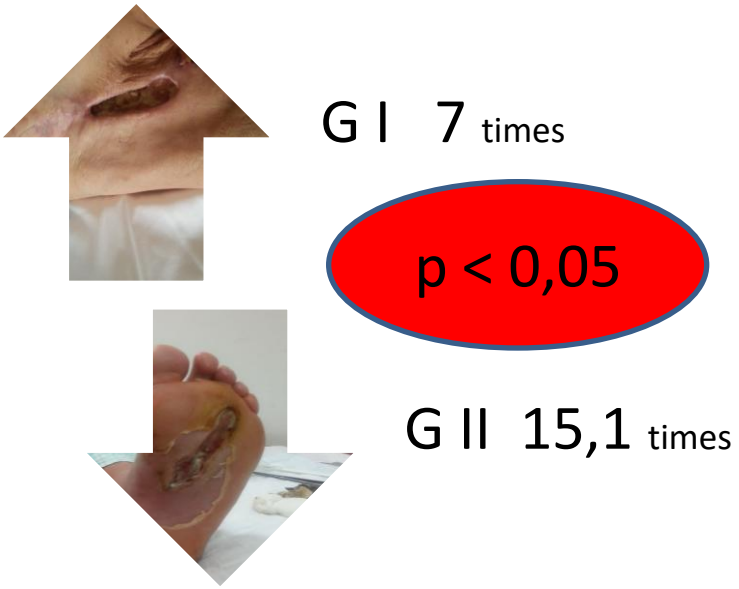
Table 2. Dressing change effect on pain intensity measured by the VAS scale (p<0,05, significant)

- **Discussion: Wound healing the GI was fast, but without statistically significant differences. We had a statistically significant difference in the two variables: measuring the intensity of pain by VAS scale and number of dressing changes to healing wounds. In both cases, the difference was in favor of the group treated with hydrophilic polymer membrane dressing.**

- **Conclusion: Hydrophilic polymer membrane are easy to use and are used as monotherapy. Wounds treated with hydrophilic polymer membrane are healed faster. Hydrophilic polymer membrane significantly reduce pain. Hydrophilic polymer membrane significantly reduces the number of dressing . We proved that patients treated with hydrophilic polymer membrane had less pain, faster healing of wounds and a hed a better quality of life.**



Sheme 1. number of days to healing wounds



Sheme 2. number of dressing changes to wound healing