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**Society
of Tissue
Viability**



INJECTABLE FORMULATION OF HYALURONIC ACID AND AMINO ACIDS: THE BEST USAGE PROTOCOL



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Potius mori quam foedari



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SUBDERMAL INJECTION OF HYALURONATE PLUS AMINO ACIDS IN RECALCITRANT PRESSURE INJURIES: PRELIMINARY RESULTS

R.Cassino, C.Galuzzi, G.Barrionuevo, L.Bettaglio, I.Cela, F.Maggi



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INTRODUCTION

The main feature of the treatment with HA/AA is the reduction of healing time¹, but in case of recalcitrant pressure injuries (developed more than 6 months before) many times we need a surgical intervention to reactivate wound bed and edge, also using bioengineered tissues.

The aim of this work is to suggest a new technique to approach this type of lesions, avoiding surgery.

1. Cassino R, Ricci E. Topical application of Vulnamin® in the management of chronic wounds: a prospective observational study. J Wound Care. 2010 Jan;19(1):29-34



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METHODS

We enrolled 10 elderly patients with recalcitrant pressure injuries, in stand by situation for 6 weeks at least.

INCLUSION CRITERIA	EXCLUSION CRITERIA
Pressure Injuries	Any other aetiology
On stand by for at least 6 weeks	In active tissue repair phase
Deep wounds	Superficial wounds
Not ischemic wounds	Ischemic wounds
Patients with high life expectance	Patients with low life expectance
	Patients with cachexy and/or neoplastic pathologies
	Patients in therapy with immunosuppressive drugs

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METHODS

All wounds had HA+AA cream/alginate dressing that have been changed according with the exudate.

The study protocol was the subdermal injection (under the wound edge) of a mixture of hyaluronic acid and 6 amino acids (lysine, proline, glycine, leucine, valine, alanine)* once a week for 2 weeks and then twice a week for 6 weeks.

*Vulnamin Inj (Professional Dietetics - Italy)

INJECTION TECHNIQUE



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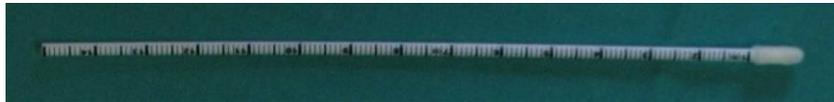
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METHODS

We evaluated the wound area reduction (WAR) and the depth reduction (DR) using the Visitrak™ system after two weeks of treatment and at the end of the study (8 weeks).



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RESULTS

All patients had a more than satisfactory result within the first week; after the first injection we noted a quick reaction in terms of granulating tissue stimulation and depth reduction.

- Depth Reduction was about 85%
- Wound Area Reduction was more than 70%
- No perilesional skin damages or to the wound edge, nor inflammatory reaction at the injection sites
- No adverse reactions/allergies



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RESULTS



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4 weeks after the end of the study



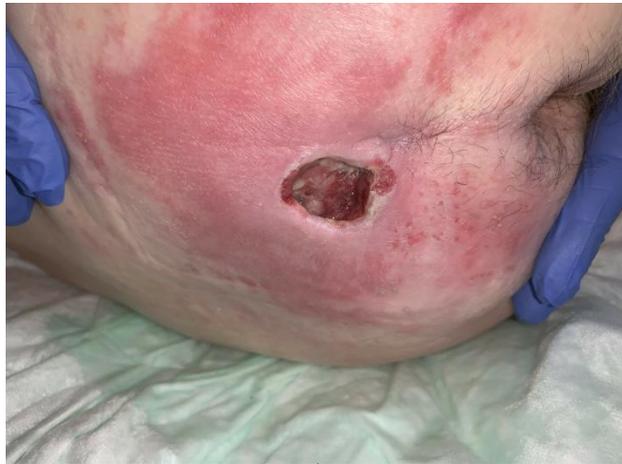
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RESULTS

Patients didn't report any disturbance or any unpleasant feeling during the observation time...

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Beginning of the treatment

Two weeks later



DR -48.3%



DR -66.4%

Three weeks later



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RESULTS

...sometimes just a slight and fleeting burning sensation during the injections.



Beginning of the treatment

Two weeks later



WAR -78.9%



WAR -97.6%

Four weeks later

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CONCLUSIONS

This new technique to treat pressure ulcers demonstrated to be effective, especially in terms of reactivation of the wound bed and acceleration of the substance loss filling.

This could be a new approach to the recalcitrant ulcers to achieve healing quickly without the necessity of a surgical intervention, avoiding the development of deep chronic wounds and saving costs.

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INJECTABLE AMINO ACIDS AND HYALURONATE: THE NEW FRONTIER IN THE CARE OF WOUNDS

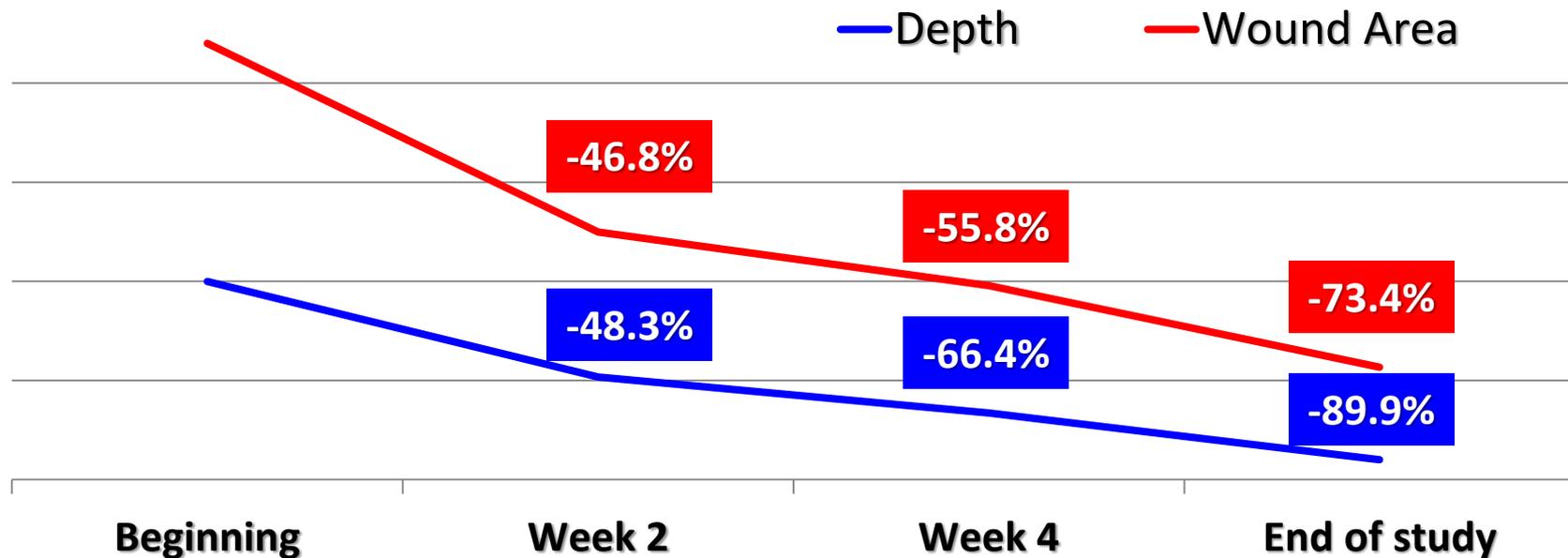
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F.Maggi¹, A.Illisan², A.Kopniak², C.Spinardi²

 KORIAN ¹“Sacra Famiglia” Nursing Home - Pieve del Cairo, Pavia (Italy)  KORIAN

²“Heliopolis” Nursing Home - Binasco, Milan (Italy)

RESULTS / DISCUSSION

All patients achieved very good results within the first week; after the first injection there was an evident growing of granulating tissue with depth reduction. DR was a little less than 90% and WAR more than 73%. No perilesional skin damages or to the wound edge, nor inflammatory reaction at the injection sites. No adverse reactions.



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CONCLUSIONS

The results we obtained confirm the validity of this new technique for approaching hard-to-heal wounds with loss of substance. The significant speed of the filling time and the rapid neoangiogenesis confirm that this technique allows an important reduction in costs and treatment times.

20th february 2024



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ONGOING CASE



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28th march 2024 (1st injection)



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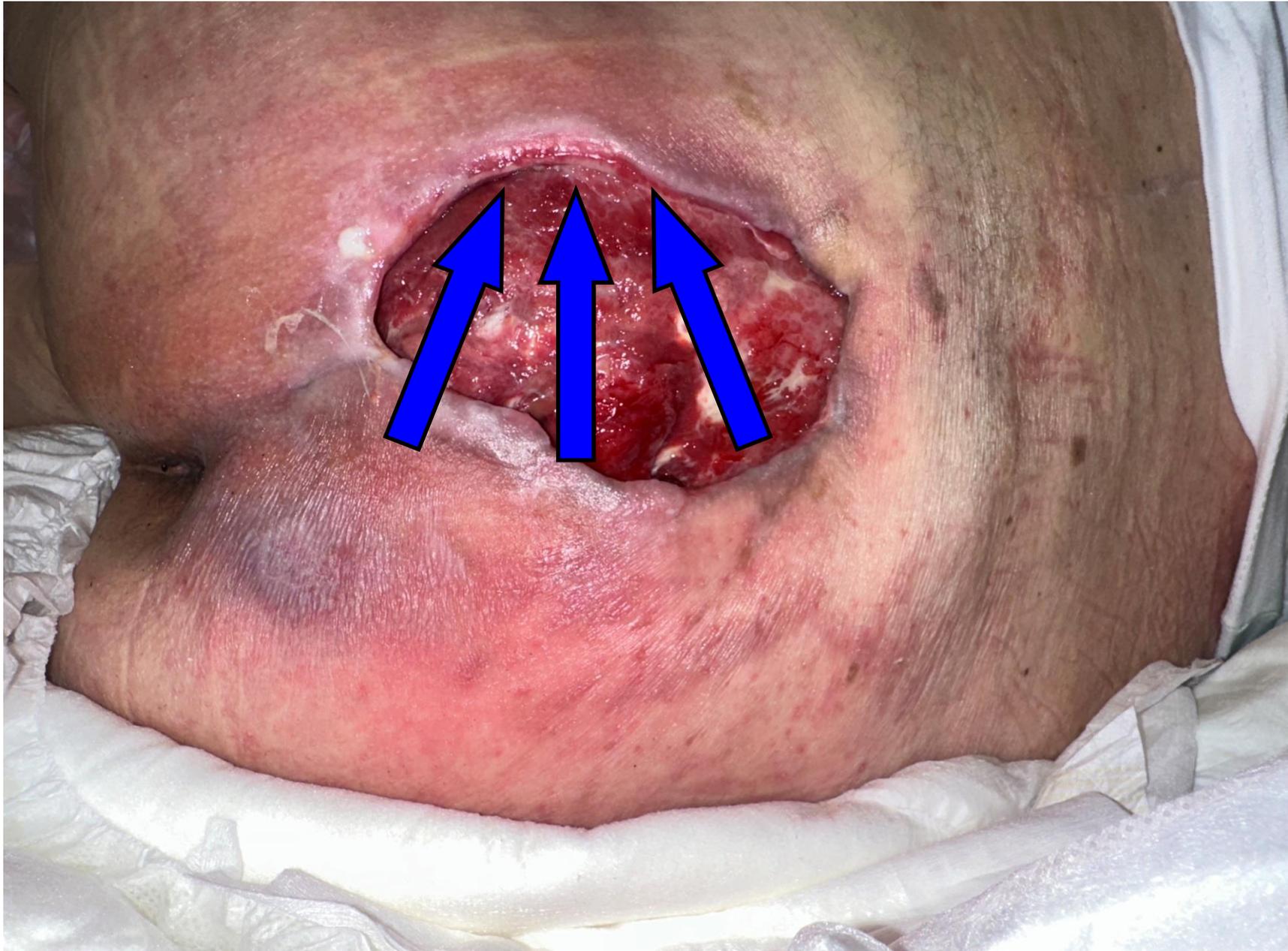
04th april 2024 (2nd injection)



11th april 2024 (4th injection)



11th april 2024



18th april 2024 (6th injection)



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18th april 2024

