New galenic antiseptic substance containing iodine (KI_3 complex) and hyaluronic acid for treatment of chronic, hardly healing wounds

Thomas Wild[1], Dieter Ponweiser[2], Arastoo Rahbarnia, Katarzynca Czaja, Thomas Eberlein

[1] Medical Director Wound Care Management, General Surgeon, Institue of Nursing Science, Paracelsus Medical Private University Salzburg, Austria [2] Wound Management Vienna, Austria

Introduction

Wounds do not occur randomly, but always have a causality. In this context, chronic wounds play a special role because they are characterized in terms of the absence of clear reparative processes over a "certain period" (where a generally accepted definition is still lacking).
Therefore, therapeutically, the mastery of the microbial situation is undoubtedly, a significant challenge to the local treatment regime.
Hereby, the application of substances should be carried out in such a way that maximum tolerance is combined with good antimicrobial efficacy.

Aim

The aim of this study was to validate the effects of Hyaluronic acid and KI_3 application on reactivation of stagnating wound healing and on the throwback of the wound infection into a chronic wound.

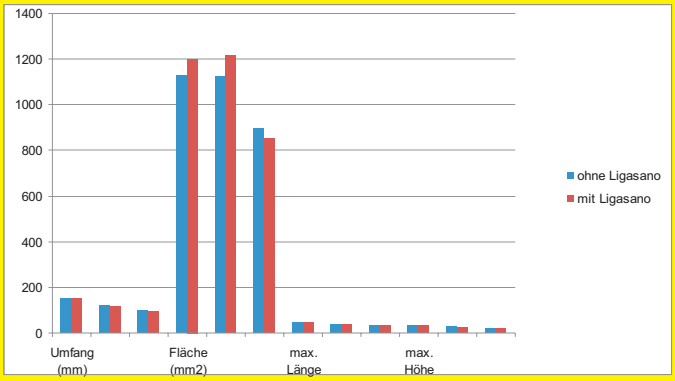
Methods and material

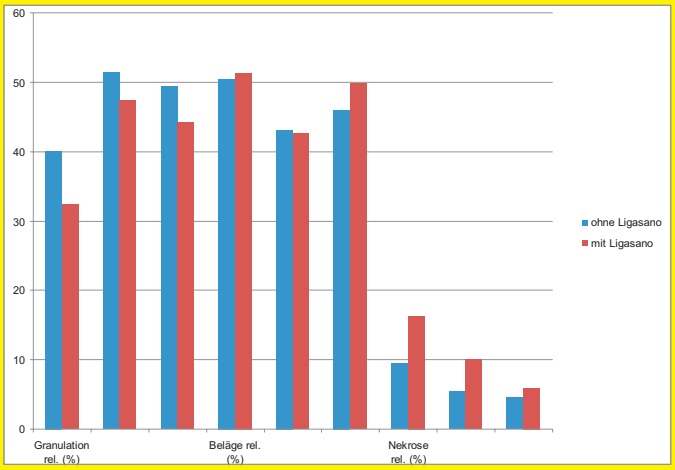
This poster describes the results of an Observer Study with 49 patients with chronic non-healing wounds with signs of chronic infection who where treated with a preperation containing hyaluronic acid and a KI_3 complex*. At 25 patients this preparation has been combined with an open cell PUR foam dressing**.
The W.H.A.T System was used for analyzing the wound stages.
The patients had been observed for four weeks of time.
The bacterial smear test has been performed three times within two weeks.

Results

In the proliferative phase hyaluronic acid stimulates the migration and proliferation of keratinocytes and the low hyaluronic acid fragments promote angiogenesis. In the granulation phase, the hyaluronic acid plays an important role in the activation of macrophages, neutrophils and in the production of various extracellular matrix proteins.
Through the involvement of hyaluronic acid in the various healing processes, hyaluronic acid promotes the formation of early granulation tissue and smooth surface of the wound, which forms a wound bed suitable for autografting.
A complete eradication at 28 patient with pseudomonas infection occured inbetween 14 days without oral antibiotics. In particular, Pseudomonas infection was treated successfully without inhibition of wound healing.
The wound cleansing effect was higher in combination with an open cell PUR foam dressing based on a depot effect.

The developement of the wound parameters during the treatment with Iodine and hyaluronic acid in combination with/without open cell foam dressing






02/01/2009


07/02/2009


07/04/2009


05/05/2009

Infected Ulcus Cruris, male patient, 64a

Ulcus Cruris, male patient, 87a


22/12/2009


12/01/2010


22/02/2010


01/03/2010

Conclusion: The combination of hyaluronic acid with a KI_3 complex* is an effective treatment of infected wounds. It has been shown that chronic non-healing wounds start to heal again. In combination with the open cell PUR foam dressing** necrosis and fibrinic films will be reduced. Also the granulation and epithelisation will be supported. It is an easy way of effective wound treatment for all phases of the wound healing process.

* Hyiodine, ** Ligasano

this study has been made possible by the support of WABOSAN company and LIGAMED company

Poster No.: P155

Presented at: EWMA 2010, 26 - 28 May, Geneva, Switzerland