

Hyaluronate-Iodine Complex Compared to Papain-Urea in the Treatment of Chronic and Acute Venous Insufficiency Wounds

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Goals and Objectives :

To determine whether a new wound healing agent, hyaluronate-iodine complex (Hyiodine), can enhance and accelerate wound healing. Hyaluronate-iodine, which is approved in the European Union, is composed of sodium hyaluronate, potassium iodide, and iodine. The synergistic effects of these agents are expected to enhance and accelerate wound healing.

Purpose :

To demonstrate accelerated wound healing using hyaluronate-iodine as compared to papain-urea (Accuzyme) in the treatment of chronic and acute venous insufficiency wounds.

Methods :

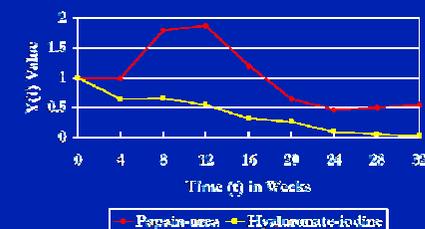
One patient with four venous insufficiency wounds was followed in the wound care center with weekly debridements and dressing changes. Hyaluronate-iodine soaked dressings were applied to the wounds of the left leg every other day, while papain-urea was applied to the right leg daily. Measurements of wound area and digital photography were used to document and assess wound healing.

Results :

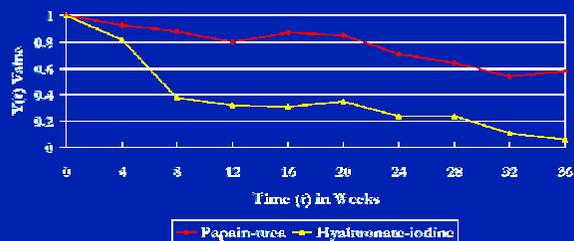
A total of four wounds were evaluated. One acute (one week old) and one chronic (12 month old) wound on the right leg were compared to an acute and chronic wound on the left leg. The chronic wound treated with papain-urea had a reduction in wound area by 42% over 36 weeks. The chronic wound treated with hyaluronate-iodine had a reduction in wound area by 94% over the same period of time. The Gompertz model for area-time relation was used to plot and compare data.

The acutely developed wound treated with papain-urea had a regression in area by 45%, while the acutely developed wound treated with hyaluronate-iodine had a regression in area by 98% over 32 weeks.

Gompertz Model - Acute Wounds



Gompertz Model - Chronic Wounds



Conclusion :

Enhanced and accelerated wound healing was noted in both chronic and acute venous insufficiency wounds treated with hyaluronate-iodine as compared to papain-urea. The anti-adhesive and antimicrobial properties of hyaluronate-iodine are believed to create a desirable environment conducive to natural wound healing.