Short therapeutic report

TREATMENT OF LEG ULCERS WITH AUTOLOGOUS HEPARINIZED BLOOD

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ABSTRACT

Background. Human blood contains growth factors, which take part in wound healing.

Objective. To test the hypothesis that topical application of human blood would improve ulcer healing, we have treated 26 leg ulcers of different etiology with repeated topical applications of human blood.

Methods. Twenty-six ulcers were treated with autologous heparinized blood under the occlusive dressing every other day. Fifteen control ulcers were treated with antiseptic ointment. The duration of follow up for each patient was 3 weeks. The surface of the ulcers was measured by planimetry. The study was performed in patients at the Department of Dermatology, Rijeka.

Results. The average surface reduction was 52.5% in ulcers treated by autologous heparinized blood. On the contrary, in control ulcers the average surface reduction was 18.2%. Complete closure of the ulcer was obtained in 3 cases (11.5%). Ulcer surface was significantly reduced in ulcers treated autologous blood ($p=0.001$), compared to controls ($p=0.62$).

Conclusion. Our results suggest that autologous heparinized blood stimulates cleansing and healing of the ulcers. It is well tolerated and an inexpensive method in the treatment of leg ulcers.

KEY WORDS

lower leg, ulcers, autologous blood, heparin, topical treatment

INTRODUCTION

Leg ulcers are mostly caused by chronic venous or arterious insufficiency that leads to inadequate tissue oxygenation and consequently worse healing (1). Numbers of methods are used in the treatment of leg ulcers with different success. One method is topical application of autologous heparinized blood (AHB) (2). It is well known that human blood contains growth factors, which take part in wound healing (3). These factors can chemotactically attract and activate inflammatory cells and initiate new expression of quiescent genes (4-6).

In this paper we present 22 patients with chronic