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Successful wound healing of refractory digital ulcer in patient with systemic sclerosis by Waon therapy

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Abstract

The treatment of digital ulcer (DU) in systemic sclerosis (SSc) has not been established. A 77-year-old female with a refractory DU in SSc on the right foot was transferred to our hospital. Wound healing had not been achieved despite several endovascular treatments (EVT) and minor amputations. We started Waon therapy 5 days per week as an adjunct therapy. She was placed in a far-infrared-ray dry sauna maintained at 45 °C for 15 min, and was subsequently kept to rest with soothing warmth using a blanket for additional 30 min outside the room. Gradually, the wound had become smaller and the

skin perfusion pressure (SPP) had increased. The increase of the blood flow to the wound could be observed in the angiogram on day 109. An additional EVT on day 109 also accelerated wound healing. Finally, wound healing was completely achieved without additional amputations on day 173. In this presented case, Waon therapy contributed to increase of the blood flow to the wound, evidenced by SPP value. Waon therapy may serve as an effective adjunct therapy of DU in SSc. < **Learning objective:** Digital ulcer (DU) frequently occurs in patients with systemic sclerosis (SSc). However, the treatment of them has not been established. We experienced a case of complete wound healing of DU in SSc following Waon therapy. Waon therapy has a potential to increase the microcirculation, as evidenced by increased SPP and angiogram. Waon therapy can be considered one option of adjunct therapy for the patient with refractory DU in SSc.>.

Keywords: Digital ulcer; Microcirculation; Peripheral arterial disease; Systemic sclerosis; Waon therapy.

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Figures

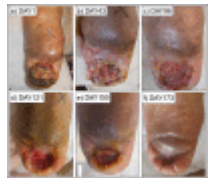


Fig. 1 Time course of the wound...

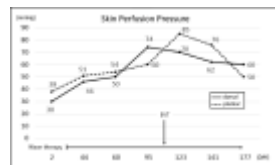


Fig. 2 Time course of skin perfusion...

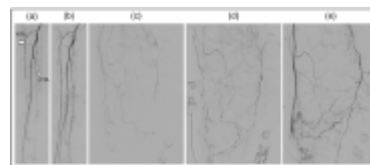


Fig. 3 Time course of angiogram (a)...

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