

Topical Wound Oxygen As An Adjunct Treatment in Healing Chronic Ulcerations

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Background

Topical Wound Oxygen (TWO₂) is a multi-modality utilizing oxygen at high pressures with a topical application along with non-contact compression. TWO₂ has been utilized during all phases of healing in challenging chronic ulcerations with or without other advanced therapies. This retrospective chart review evaluated healing among patients with chronic ulcerations of varied etiologies who were treated with TWO₂ in conjunction with standard and advanced treatments. This analysis is a continuation of previously published data incorporating 15 additional patients allowing for further investigation into previously presented results.

Methods

In this study, 52 patients with a total of 92 wounds from one hospital were prescribed TWO₂. Patients with wounds of venous/lymphatic insufficiency were most commonly prescribed TWO₂ (40), followed by surgical or traumatic wounds (20), diabetic (18), pressure (9) and ischemic ulcers (5). The patients with concurrent PVD had a range from mild-severe with or without vascular intervention. Eight patients were excluded: 6 lost to follow-up, 1 due to dry gangrene and 1 who was prescribed TWO₂ following elective 1st ray surgery with sickle cell disease.

Results

Upon data collection of the 84 ulcers, 46 have completely epithelialized, representing a 54.76% closure rate. This additional analysis improves the overall closure rate from our previously published study, which demonstrated a healing rate of 43.9%. With the exception of 8 healed ulcers, the remaining wounds utilized adjunctive treatment including tissue products, venous pumps or arterial pumps during the treatment course due to the extreme complexity of the patients. Of the ulcerations that have not reached full closure, the majority have decreased in size since initiation of TWO₂.

Conclusions

This continuation of a large retrospective analysis continues to demonstrate that TWO₂ is a valuable adjunct modality in the treatment of chronic ulcerations. Results show an encouraging closure rate and noted wound improvement on these recalcitrant ulcerations.

Topical Wound Oxygen can be utilized with various types of wounds: surgically created wounds, diabetic foot ulcers, venous leg ulcers.

