

**The intensive care of lower limb diabetic wounds: our 5 years experience in 121 patients treated topically with ozone as an adjunctive agent.**

Noam Calderon, Teddy Kaufman, Leonid Bryzgalin, Munir Awad

Division of Plastic and Reconstructive Surgery ,Bnai-Zion Medical Center, Haifa

**Abstract**

The purpose of this study was to critically assess the efficacy of topical OZONE treatment of chronic diabetic and PVD ulcers of the lower limb as an adjunctive modality to serial debridements of the wounds; topical and systemic antimicrobial agents and, frequent dressing changes.

#### **Patients:**

183 patients were treated between 6/1997 to 8/2001. 5 were excluded from the study. 99/178(55%) were diabetic, while 104/178 (58.4%) suffered also of peripheral vascular disease. 39/178 (21.9%) were discontinued due to physiological disturbances. 78/178 suffered of venous ulcers, and 12/78 were discontinued.

#### **Modality of treatment:**

consisted of –repeated wound cultures (X 3/week), topical and systemic antimicrobial agents according to wound colonization, serial wound and osteomyelitic bone debridements, dressing changes X 3/day in the presence of our Resident and, topical Ozone X 3/week.

#### **Results:**

The mean wound duration prior to treatment was – 14.1 months.

The mean healing time was – 49 days.

The mean number of Ozone treatments was 25.7/patient.

34/178 (19.1%) - patients were discontinued from the trial. 151/178 (84.8%) - were fully healed, ( 9 patients out of the latter group were referred to us after failure of HBO treatment).

32/84 (38.7%) – were skin grafted, 27/162 ( 16.6% ) – were diagnosed as non-response patients, 7 of them underwent limb amputation.

#### **Conclusions:**

Topical Ozone might be considered an optimal adjunctive agent for the treatment of chronic diabetic ;arterial and venous leg ulcers.