

# **Effect of Hyperbaric Oxygen on Wound Healing in Patients Undergoing Laser Skin Resurfacing**

*A Preliminary Study, Beverly Hills Center for Hyperbaric Medicine*

## **Background:**

Hyperbaric oxygen therapy(HBO) is well established as an adjunctive treatment in burn patients (Annals of Plastic Surgery, 1978). Plastic and reconstructive surgery patients undergoing chemical peel and laser skin resurfacing receive an iatrogenic injury similar to that sustained by burn victims. Laser resurfacing patients have wound edema and erythema that may persist for weeks to months and delays the return of the patient to normal activities of life. We hypothesized that early and aggressive use of HBO to these patients could shorten the recovery period as measured by intensity and duration of erythema.

Methods: Patients undergoing laser dermabrasion were given HBO at 2.4 ATA for 90 minutes beginning the first postoperative day and daily for 6 to 10 consecutive days and were followed clinically by their operating surgeons.

## **Results:**

To date 12 patients have been studied. 11 patients were female, and 1 was male. Age range 45 to 66 years. 11 patients had never had previous laser or chemical peel surgery, and 1 had previously undergone similar surgery without HBO. All 12 patients tolerated the HBO well and no complications occurred. All 12 patients appeared to have diminished intensity and duration of erythema.

## **Conclusions:**

This preliminary study suggests that HBO administered post operatively to laser skin resurfacing patients is well tolerated and may shorten the intensity and duration of erythema. Further studies are indicated.

HBOT can speed up healing in patients undergoing face lifts, skin resurfacing with laser or chemical peels, tummy tucks, breast reduction and enlargement surgery and many more conditions. We have found that HBOT shortens the recuperation time by 33% to 50%, reduces swelling and pain and may improve the results. Patients come to our facility to use our hyperbaric oxygen treatment in conjunction with their cosmetic surgery.