

Effect of Hyperbaric Oxygen on Wound Healing and Return to Normal Activity in Breast Augmentation and Abdominoplasty Patients

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Hyperbaric oxygen therapy (HBO) is a method of administering pure oxygen at greater than normal atmospheric pressure to a patient in order to improve or correct certain medical and surgical conditions.

It is increasingly becoming popular in cosmetic surgery centers where in patients undergo HBO therapy post-operatively.

OBJECTIVE This study aims to find out whether the use of HBO therapy speeds up wound healing and recovery period for patients undergoing augmentation mammoplasty and abdominoplasty.

METHOD For the breast augmentation group, 10 patients in the treatment group received HBO therapy, while 10 patients in the control group did not. For the abdominoplasty group, each group comprised of 6 patients. Those patients in the treatment group were all subjected to one-hour sessions of HBO therapy for 5 consecutive days. Each patient was then evaluated on the 3rd, 5th, 7th, and the 14th post-operative day (POD) the following events were recorded: tenderness, erythema, wound closure, and return to normal activity.

RESULTS All patients in the treatment group tolerated the procedure well. Those who underwent the therapy appeared to have diminished erythema and tenderness. Early wound closure and faster recovery time were also observed for both treatment groups (augmentation mammoplasty and abdominoplasty). Applying one-sample log rank test and chi-square distribution with 3 degrees of freedom, the study revealed that patients who had augmentation mammoplasty and had HBO therapy post-operatively had faster recovery time in all 4 events (tenderness, erythema, wound closure and return to normal activity). Study's also showed that patients who had abdominoplasty and had HBO therapy accelerated wound closure only and not the other events.

CONCLUSION Overall, these data demonstrate that HBO therapy is effective for patients who desire to return to their normal activities in just a short time after having breast augmentation. HBO therapy for post – abdominoplasty patients cannot be concluded to be ineffective either. It is suggested that the period of time to track down patients' recovery be lengthened for further studies.