

# Rapid Recovery Hyperbarics

9439 Archibald Ave. Suite 104 Rancho Cucamonga CA, 91730  
909.477.4545 | www.hbot4u.com



Source: Clin Otolaryngol |

## **Comparison of Therapeutic Results in Sudden Sensorineural Hearing Loss with/without Additional Hyperbaric Oxygen Therapy; Liu SC, Kang BH, Lee JC, Lin YS, Huang KL, Liu DW, Su WF, Kao CH, Chu YH, Chen HC, Wang CH; Clinical Otolaryngology (Mar 2011)**

To investigate the necessity of routine application of hyperbaric Objective: oxygen therapy for sudden sensorineural hearing loss. Design/setting and A retrospective chart review looked at 465 patients, with 353 of participants: them receiving pharmacologic treatments alone. Among these patients, 76 underwent systemic steroid treatment only (steroid group) and 277 received systemic steroids and dextran (steroid-dextran group). The remaining 112 patients were treated with hyperbaric oxygen in addition to pharmacologic agents The outcome was determined (steroid-dextran-HBO group). Main outcome measures: by comparing the difference of pure-tone thresholds and absolute hearing gains after treatment calculated at each audiometric octave frequency or grouped frequencies of audiograms. On the basis of the severity of initial hearing loss, patients were classified at three scales of hearing impairments measured in decibels hearing level: &IE;70 dBHL, less severe; 71-90 dBHL, severe; and &gE;91 dBHL, profound. The outcomes of their hearing recovery were In those classified into three recovery grades: good, fair, and poor. Results: patients with initial hearing loss greater than 90 dBHL the addition of hyperbaric oxygen to steroid-dextran gave a significant hearing gain difference ( $p = 0.030$ ) by showing a greater hearing gain of  $24.5 \pm 2.7$  dB compared with steroid only ( $12.9 \pm 3.7$  dB) or steroid-dextran ( $15.6 \pm 2.7$  dB). This outcome was confirmed when we compared the outcome using the recovery grading, steroid-dextran-HBO group showed more patients with initial profound (&gE;91 dBHL) hearing loss responded to hyperbaric oxygen treatment by exhibiting good and fair recoveries (2 and 70%) as compared with steroid only (0 and 42%) or steroid-dextran (8 and 46%) groups ( $p = 0.043$ ), while the patients with initial severe (71-90 dBHL) and less severe (&IE;70 dBHL) hearing loss responded to the addition of hyperbaric oxygen treatment with less favorable recoveries. Furthermore, the addition of dextran in steroid-dextran group showed no significant benefit compared to the steroid group ( $p = 0.435$ ). Conclusions: When applied as an adjuvant to pharmacologic agents, hyperbaric oxygen benefits patients with initial profound sudden sensorineural hearing loss. **Therefore, we recommend the routine application of hyperbaric oxygen in conjunction with pharmacologic agents for those patients. The addition of dextran to steroid has no benefit and cannot be recommended.**