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4. Burns Treated with Adjunctive Hyperbaric Oxygen Therapy

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Hyperbaric oxygen therapy (HBO) has become a common adjunctive treatment for burn patients in the Naval General Hospital at Tsoying. In this study, 266 patients with total body surface area (TBSA) burns ranging from 7 to 90% (mean 34%) and ages ranging from 2 to 82 yr (mean 27 yr) were treated when compared with 609 non-HBO-treated patients with TBSA burns ranging from 5 to 85% (mean 36%), and ages ranging from 7 mo to 80 yr (mean 26 yr), the mortality rates were almost the same. In the HBO group there were 28 deaths (10.5%), and in the non-HBO group 79 deaths (13.0%) ($p > 0.05$). The mortality in HBO-treated cases, showed a statistically significant difference, 8 deaths in 117 cases in the HBO group (6.8%) vs. 25 deaths (14.8%) in 169 cases in non-HBO group ($p = 0.028$) in addition, in burns treated with HBO, fluid resuscitation could be achieved more rapidly, nasogastric feeding could be initiated in the second 24 h or earlier, and there was an acceleration of reepithelization. The average number of hospital days in high-risk patients treated with HBO was less than that in the non-HBO-treated group (47 d vs. 59 d), but this was not statistically significant ($p > 0.05$). Two cases treated with HBO who would not have been expected to survive are presented.

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5. Hyperbaric Oxygen Therapy in Hemorrhagic Radiation Cystitis

—A Report of 25 cases—

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Radiation cystitis with macroscopic hematuria has been a frustrating clinical problem for urologists. Since 1985, hyperbaric oxygen (HBO) has been used to treat this disease, showing favorable results. Between November 1989 and May, 1994, 25 female patients with hemorrhagic radiation cystitis were treated with HBO at a pressure of 2.5 ATA, breathing 100%O₂ for 100min. in our multiplace hyperbaric chamber. After an average of 43 HBO sessions, macroscopic hematuria was completely cured in 21 cases (84%) and markedly decreased in 2 cases (8%). Comparison of the cystoscopic findings before and after HBO showed a significant decrease in hemorrhagic sites and telangiectasias of the bladder mucosa. One patient (4%) had urinary frequency and urgency without hematuria during her hospital stay. After 30 sessions of HBO therapy, her symptoms subsided, and the cystoscopic findings were much improved. Only one case (4%) failed to respond to HBO and underwent ileal conduit diversion. The mean follow-up period was 28 months (2 to 53 months). From our clinical results and cystoscopic findings, we suggest that HBO is an effective and safe treatment for hemorrhagic radiation cystitis.