

Hyperbaric Medicine for Necrotizing Fasciitis

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Summary

There are 2 main reasons to use HBO₂ in NF: the polymorphism of the bacterial flora with a predominance of anaerobes; and the tissue necrosis due to an extensive disseminated microvascular obstruction within the infected area. It was found that the association of HBO₂ to antibiotics and surgery is based on strong pathophysiological findings as well as on evidences from animal and clinical studies.(4) Thirteen cases of cervical NF were treated with HBO₂.(5) All patients recovered. The findings added further support to the literature on the importance of a prompt multidisciplinary approach with aggressive surgical intervention, broad-spectrum antibiotic therapy and HBO₂. Thirty-three patients with perineal NF were treated by surgical debridement, antibiotic therapy, HBO₂ treatment at 2.5 atmospher absolute pressure and surgical intensive care. Three patients died giving a mortality rate of 9.1%. The results indicated that HBO₂ was an important therapeutic adjunct in the treatment of perineal NF.(6) Eleven patients with NF were treated in a hyperbaric chamber after a surgical operation and after administration of antibiotics.(7) A total of 8 patients (82%) recovered completely. The authors draw attention to the possible reduction of mortality of this serious disease when using HBO₂. Generally, NF is a serious, rapidly progressive infection that sometimes involves skin, subcutaneous tissue and muscle. Overall mortality rates of 33-73% have been reported.(7) Necrotizing faciitis is a life-threatening bacterial infection causing necrosis of the fascia, underlying skin and vasculature. The treatment for NF is a combination of surgical debridement, appropriate antibiotics and optimal oxygenation of the infected tissues. Complete recovery of patients suffering from NF depends on early and aggressive surgical therapy as well as conservative therapy.(9) Significant morbidity and mortality attends NF when

treatment is delayed due to toxemia, dehydration and severe biochemical disturbances.(10) Treatment usually involves appropriate antimicrobial therapy, control of systemic disease, thorough surgical debridement, gamma globulin administration and HBO2 when facilities exist. Hyperbaric oxygen therapy should be considered as a treatment adjunct in patients with NF. In addition, we hope that hyperbaric medicine should be introduced in Gulf region and used for the indications approved.