

## **TRATAMIENTO DE OXÍGENO HIPERBÁRICO EN INFECCIÓN NECROSANTE DE TEJIDOS BLANDOS**

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**Hyperbaric oxygen treatment and survival from necrotizing soft tissue infection**

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**Hypothesis:** Necrotizing soft tissue infection (NSTI) refers to a spectrum of infective diseases characterized by necrosis of the deep soft tissues. Features of manifestation and medical management have been analyzed for association with outcome. The use of hyperbaric oxygen (HBO<sub>2</sub>) therapy has been recommended as an adjunctive treatment but remains controversial. **Design:** Retrospective cohort study. **Setting:** A major tertiary hospital. **Patients:** All patients admitted with a diagnosis of NSTI across a 5-year period.

**Intervention:** Features of manifestation and medical management were analyzed for their association with survival to hospital discharge. Long-term survival was analyzed for the intervention of HBO<sub>2</sub> therapy.

**Main Outcome Measures:** Primary outcome was survival to hospital discharge. Secondary outcomes were limb salvage and long-term survival after hospital discharge.

**Results:** Forty-four patients were reviewed, with 6 deaths (14%). Survival was less likely in those with increased age, renal dysfunction, and idiopathic etiology of infection and in those not receiving HBO<sub>2</sub> therapy. Logistic regression determined the strongest association with survival was the intervention of HBO<sub>2</sub> therapy ( $P = 0.02$ ). Hyperbaric oxygen therapy increased survival with an odds ratio of 8.9 (95% confidence interval, 1.3 – 58.0) and a number needed to treat of 3. For NSTI involving an extremity, HBO<sub>2</sub> therapy significantly reduced the incidence of amputation ( $P = 0.05$ ). Survival analysis revealed an improved long-term outcome for the HBO<sub>2</sub> group ( $P = 0.002$ ).

**Conclusion:** Hyperbaric oxygen therapy was associated with improved survival and limb salvage and should be considered in the setting of NSTI.