

Hyperbaric Oxygen Therapy (HBOT) Concomittent to Surgery for Fournier's Gangrene

Introduction and Objective: Hyperbaric oxygen therapy (HBOT) concomittent to surgery has been reported to reduce Fournier's gangrene (FG) mortality compared to exclusive surgical debridement. Most report from centers with relatively few patients using only surgical procedure. Objectives: To assess efficiency of aggressive debridement with adjunctive HBOT. To evaluate Fournier's gangrene severity score index (FGSI) predictive value.

Materials and Methods: Seventy cases of Fournier's gangrene (FG) were treated by surgical debridement and HBOT. Data were evaluated: physical examination findings, admission and final laboratory tests, surgical debridement extent, and antibiotic used. Patients had adjunctive (HBOT). FGSI, developed to assign a score describing the acuity of disease, was used. This index presents patients' vital signs, metabolic parameters (sodium, potassium, creatinine, and bicarbonate levels, and white blood cell count) and computes a score relating to the severity of disease at that time. Data were assessed according to whether the patient survived or died.

Results: Of 70 patients, 8 died (11.4%) and 62 survived (88.5%). Difference in age between survivors (median age, 50.0 yr) and non survivors (median age, 54.5 yr) was not significant ($p = 0.321$). Median extent of body surface area involved in necrotizing process in patients who survived and did not survive was 2.4% and 4.9%, respectively ($p = 0.001$). Except for albumin, no significant differences were found between survivors and nonsurvivors. Median admission FGSI scores for survivors and non survivors were 2.1 ± 2.0 and 4.2 ± 3.8 , ($p = 0.331$).

Conclusions: FGSI score did not predict disease severity and the patient's survival. Metabolic aberrations, extent of disease seemed to be important risk factors for predicting FG severity and patient survival.