

Hyperbaric Oxygen Therapy as an Adjunct in the Management of Diabetic Foot Complications

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ABSTRACT

Objective: To evaluate the use of hyperbaric oxygen therapy on the rate of lower limb amputation and total wound healing in the management of diabetic foot.

Setting: Hyperbaric Unit, King Hamad University Hospital.

Design: A Retrospective Study.

Method: All diabetic patients with a breach of the skin of the foot and who had received either wound care or combined with hyperbaric oxygen therapy from January 2012 to September 2013 were included in the study. Data documented were the following: lower limb amputation, minor amputation, surgical debridement, healing status achieved and the effect of hyperbaric oxygen therapy on any of these outcomes.

Result: Seventy-six patients had Diabetic Foot Ulcers of different stages. The Wagner grading system and University of Texas diabetic foot severity scale were both used to determine the most sensitive and specific tool for future use. Fifty-two (68%) patients were included for analysis, 25 (48%) were grade 3-4 Wagner Classification and 29 (56%) 2D-3D University of Texas Classification, 44 (85%) were male and 8 (15%) were female. The majority were in the age group of 45-64 years. Full healing was achieved in 42 (80.8%) patients. Four (8%) patients had major amputation procedure. All patients analyzed had received hyperbaric oxygen as adjunctive therapy.