

LESIÓN POR RADIACIÓN CRÓNICA EN LOS TEJIDOS – EVALUACIÓN PROPECTIVA DE PACIENTES TRATADOS CON OXÍGENO HIPERBÁRICO

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Prospective Assessment of Outcomes in 411 Patients Treated With Hyperbaric Oxygen for Chronic Radiation Tissue Injury

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BACKGROUND: Although hyperbaric oxygen is used to treat chronic radiation tissue injury, clinical evidence supporting its efficacy has been limited to date. The authors report prospectively collected patient outcomes from a single center's large experience using hyperbaric oxygen to treat chronic radiation injury.

METHODS: Since 2002, patient outcomes at the conclusion of a course of hyperbaric oxygen treatment for chronic radiation tissue injury at Virginia Mason Medical Center in Seattle have been graded by a board-certified hyperbaric physician and prospectively recorded. From 2002 to 2010, a total of 525 patients received treatment for 1 of 6 forms of radionecrosis analyzed. After excluding 114 patients for incomplete records or treatment courses or for previous receipt of hyperbaric oxygen therapy, records of 411 patients were retrospectively reviewed in 2010, and outcomes were regraded by a second board-certified physician. A positive clinical response was defined as an outcome graded as either “resolved” (90%-100% improved) or “significantly improved” (50%-89% improved).

RESULTS: A positive outcome from hyperbaric treatment occurred in 94% of patients with osteoradionecrosis of the jaw (n = 43), 76% of patients with cutaneous radionecrosis that caused open wounds (n = 58), 82% of patients with laryngeal radionecrosis (n = 27), 89% of patients with radiation cystitis (n = 44), 63% of patients with gastrointestinal radionecrosis (n = 73), and 100% of patients who were treated in conjunction with oral surgery in a previously irradiated jaw (n = 166).

CONCLUSIONS: The outcomes of 411 patients collected prospectively over 8 years strongly supported the efficacy of hyperbaric oxygen treatment for the 6 conditions evaluated. The response rates previously reported in numerous small series were supported by the responses achieved in this large, single-center experience.