Published Papers Regarding Hyperbaric Oxygenation For Anoxic Encephalopathy and Coma

Neubauer RA. The effect of hyperbaric oxygen in prolonged coma. Possible identification of marginally functioning brain zones. Medicina Subacquea ed Iperbarica. 1985: (3) 75-79.

17 cases of vegetative coma for 1 - 22 months. 40 - 120 exposures over 20 - 90 days. Glasgow Coma Scale improved in all. Complete recovery of 5.

Eltorai I, Montroy R. Hyperbaraic Oxygen Therapy leading to recovery of a 6-week comatose patient afflicted by anoxic encephalopathy and post-traumatic edema. J. Hyperbaric Medicine 1991: (3) 189-198.

90 mins HBO2 od. After 24 sessions, started talking and ate meals. Gradually mobilised to a wheelchair.

Harch PG, et al. SPECT brain imaging and low pressure HBO2 in the diagnosis and treatment of chronic traumatic, ischaemic, hypoxic and anoxic encephalopathies. Undersea and Hyperbaric Med. 1994 (Supp)

4/5 showed improvement in focal cortical & deep grey matter deficits.

Shn-rong Z. Hyperbaric Oxygen Therapy for Coma - report of 336 Cases. In Proc XI Intnl Cong Hyperbaric Med. Best, Flagstaff. 1995; 279-285

HBO2 is effective in acute brain hypoxia and oedema and can hasten recovery of consciousness, including prolonged coma.

Neubauer RA, Gottlieb SF, Pevsner NH. Long-anoxic ischaemic encephalopathy: predictability of recovery. In Proc XII Intnl Cong Hyperbaric Med. Best, Flagstaff. 1996. (In press).

8 long-term patients with severe anoxic ischaemic encephalopathy between 3 months and 12 years. Improvement in all cases, both clinically and on SPECT scans. Until the introduction of SPECT scanning there has been no diagnostic technique providing evidence that any treatment would be effective.

Quinly C, Shaoji Y. Nursing of Brain-Stem injury with HBO2. Ibid.

39 patients treated with HBO2. Decreased mortality and increased awake rate.

Zhi Y, et al. Assessment of the efficacy of HBO2 in patients with a persistent vegetative state. Ibid.

8 patients in coma, longest 281 days prior to HBO2. 20 - 86 daily sessions. All resumed consciousness.

News article: "High pressure chambers could be used in preventing paralysis"

Washington (May 10, 1998) - High pressure chambers used to treat divers who rise too fast underwater could he used to help prevent paralysis in people with damaged spinal cords, researchers said Sunday. "It may mean the difference between significant disability and no disability," Dr. Philip James of the University of Dundee in Scotland said in a statement. James said the high pressure chambers forced healing oxygen into the tissues of a damaged spine. If the blood flow is not restored quickly, cells die, resulting in permanent damage.

A consultant to the North Sea diving industry, James told a conference in Washington that hyperbaric chambers used to treat or prevent the "bends" from decompression sickness in divers would also benefit patients who had spinal injuries. "Most trauma centers do not have hyperbaric chambers, which is a tragedy, and most physicians don't understand the need to increase the dissolved oxygen in the plasma of the blood," said James, who presented his ideas to the Space and Underwater Research Group of the World Federation of Neurology.

"Hyperbaric oxygen and reflex sympathetic dystrophy: a case report", Peach G. Hyperbaric Medicine Department, Shock Trauma Center, University of Baltimore Medical Center, Baltimore, Maryland. "Hyperbaric oxygen and the reflex sympathetic dystrophy syndrome; a case report". Undersea Hyperbaric Medicine 1995; 22(4):407-408.

A patient suffering from acute smoke inhalation also had a long medical history that included reflex sympathetic dystrophy syndrome of the left foot and ankle. The entire foot and ankle were tender and cool to palpation; range of motion was severely reduced. Shewas referred for hyperbaric oxygen therapy , and 15 minutes into the firsttreatment (46 min at 60 swf) she reported a lessening of the pain in her foot; moreover, the foot was less cyanotic and warmer to the touch. Subsequent treatments continued to improve her conditions and for longer periods of time.

"Hyperbaric Oxygen in the Treatment of Sudeck's Syndrome", G.Lovisetti, L.Lovisetti, A.Favelli; Istituto di Terapia Iperbarica; Como, Italy.

Summary: The decrease in tissue hypoxia obtained with Hyperbaric Oxygenation (HBO2) counteracts the effects of reflex vasomotor disturbances caused by an injury in post-traumatic Sudeck's syndrome.

References:

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3. *Benning R, Steinert . Diagnostic criteria of Sudeck Syndrome. Rontgenblatter 41: 239 45,1988.*
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7. *Poplawski ZJ’ Wiley AM, Murray JF. Post-traumatic dystrophy of the extremities. J Bone Joint Surg 65A: 642-55.1983.*
8. *Schutzer SF, Gossling HR. The treatment of reflex sympathetic dystrophy syndrome. J Bone Joint Surg 66A: 625-29, 1984*