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Hyperbaric Oxygen Therapy can Decrease Morbidity and Increase Survival for Cancer Patients

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INTRODUCTION: Treatment of bone and soft tissue radionecrosis is an approved use of Hyperbaric oxygen therapy (HBOT). Less well recognized is the value of HBOT in treating extravasation of chemotherapy agents and other potential benefits for the cancer patient which can decrease morbidity and increase survival.

RESULTS: The benefits of HBOT in soft tissue and bone radionecrosis is well documented for adults and has been reported to provide similar benefits for children. HBOT has significantly decreased the morbidity of chemotherapy extravasation and should also decrease morbidity of the hand and foot syndrome from chemotherapy. HBOT is routine treatment for carbon monoxide poisoning and decompression illness. There is growing recognition of the value of HBOT in treatment both adults and children of for cerebral palsy, stroke, autism, Lyme disease, ataxia-telangectasia, brain trauma, multiple sclerosis and encephalopathies from meningitis and hypoxia. As in other neurological conditions HBOT has cleared symptoms of the recently described chemo brain in a patient who is now out of her "fog" and has returned to work for the first time in six years. Acute blood loss anemia is a recognized indication for HBOT. Therefore, HBOT could be a significant factor in treating the anemia of cancer and might be synergistic with erythroprotein. HBOT has benefited the patient with chronic fatigue syndrome and should help the cancer patient with fatigue. As reported from Japan in 1999 HBOT given immediately prior to radiation therapy (XRT) for brain tumors showed a 50% increase survival with HBOT. While the pre-radiation HBOT report from Japan was in adults, similar response could be expected for brain tumors in children. HBOT just before XRT is effective as I used it 20 years ago for difficult cases such as chest wall synovial cell sarcoma. Also, T.R. Shantha, MD and others have reported the benefit of HBOT when used with chemotherapy.

CONCLUSION: The concern that increased oxygen might stimulate the growth of cancer is countered by the years of data from HBOT use in Osteoradionecrosis in both adults and children. Patients receiving HBOT as part of the reconstructive process have significantly less cancer recurrence than those who did not receive HBOT decreases the implantability of cancer cells and may restore apoptosis. Based on the data presented, there is a significant need to expand the use of HBOT as supportive therapy in oncology for adults and children.