Hyperbarics OF SUN VALLEY

Experience oxygen saturation at a cellular level

HBOT AND PARKINSON

5 patients with a history of Parkinson's Disease (PD) were treated with Hyperbaric Oxygen Therapy (HBOT) for 1 hour at 1.5-2.0 ATA. All 5 patients reported a decrease in tremors and an improvement in general well-being. The patients underwent an initial course of 10 treatments and were allowed to continue treatment as needed until they perceived a plateau in benefit. The treatment benefit appeared sustained for approximately 1-5 months, and was re-established following additional HBOT. There were no complications. HBOT may be a safe and effective treatment option for patients with PD.

PD is a progressive neurological disorder affecting at least 500,000 people in the United States. Parkinsonian Syndrome (PS) includes the idiopathic or typical PD which accounts for 85% of PS cases, neuroleptic-induced which accounts for 7-9% of PS and is reversible, and other types such as progressive supra nuclear palsy, multiple systems atrophy, corticobasal degeneration, vascular, toxins, and recurrent head trauma, all accounting for less than 10% of cases.

It has been demonstrated that even early stage PD exhibits a subnormal response to hypoxia. A discrepancy in ventilatory response to isocapnic, progressive hypoxic rebreathing in PD patients under minor and severe hypoxia was felt to be due to a dysfunction in chemoreception. The reduction in aveolar ventilation could not be attributed to mechanical restriction of lung function, and was unrelated to whether or not the patient was being treated with dopaminergicdrugs.

Case 1:
This physician's 86 year old mother with a 15-year history of PD and tremors at rest, bradykinesia, sleep disturbance, and depression taking 5 medications for PD under went a course of 10 HBOT at 1.5 ATA. She reported an improvement in well-being and was observed to have a decrease in tremors. She underwent an additional 3 HBOT at 1.5 atA. The beneficial effects of the treatment appeared to be sustained over the course of the next 4 months.

Case 2:
This 75 year old former corperate vice president with a 6 year history of PD taking dopaminergicdrugs with resting tremors, difficulty with balance, and insomnia underwent 20 HBOT at 1.5 ATA and 3 treatments at 1.75 ATA. There was a significant improvement in tremors, balance, and insomnia, which has been maintained for 5 months. The tremors began to return, and the patient underwent 5 additional HBOT treatments with an improvement in symptoms.

Case 3:
This 63 year old former fire fighter with a 6 year history of PD like symptoms diagnosed with PD 4 years ago had discontinued his dopaminergic agents, but continued taking amantadine for his tremors without effect. He underwent 30 HBOT at 2.0 ATA and had a complete resolution of his right hand tremor, which has been maintained for the last 5 months.

Case 4:
This 69 year old practicing physician with a 3 year history of PD on dopaminergic medication had discontinued driving and reported difficulty in writing, episodes of rigidity, and always feeling "washed out". Afetr one HBOT treatment at 1.5 ATA, he reported feeling like "his own self again", and after 7 treatments resumed driving. The treatment benefit appeared to last for 24 to 48 hours- the end point of the benefit strongly related to stress experienced at work. The patient underwent 13 additional HBOT treatments at 2.0 ATA (20 treatments total), and he reported a complete resolution of symptoms for 1 month. The "washed out" feeling returned and after undergoing and additional 2 HBOT treatments, he again felt "well".

HBOT is a safe, easily administered, and relatively inexpensive treatment. K.H. Holbachreported that HBOT treatment at 1.5 ATA resulted in a balanced cerebral glucose metabolism, which indicated an improved oxygenation and energy production of the injured brain. In this preliminary study to determine if HBOT could play a role in treatment of PD, patients were treated, depending on the severity of their symptoms, from 1.5-2.0 ATA. The treatment ATA and the number of treatments were determined by the patient symptoms in relation to their subjective perceived benefit of treatment and the observations of the patient's spouses or care givers. The positive preliminary results reported in this small group of patients may be due to a placebo effect. A prospective study using a constant ATA and objective assessment of effectiveness should now be performed to further evaluate the role of HBOT in the treatment of PD.