

# CNS-Brain Necrosis

- Koshi K 2003 Case report of brain necrosis
- Patient had had 2 crses of Stereotactic Radiosurgery to the same lesion in the left cerebellum
- He developed dizziness and ataxia
- MRI showed a cystic area with peripheral enhancement
- Had 2 crses of HBO for a total of 110 txs at 2.5 ATA for 60 minutes (he had had temporary improvement after the 1<sup>st</sup> crse)
- After 2<sup>nd</sup> crse MRI and neurologic sx stabilized

# CNS-Brain Necrosis-2

- ▶ Case report UHMS 2009 Abstract Only
- ▶ Pons et al report 63 y/o patient with biopsy proven brain necrosis in suprasellar region after resection of cranipharyngioma followed by ext beam rads additionally had radioactive P-32 injected into cyst after tumor recurrence
- ▶ Received 40 HBO2 txs at 2.0 ATA for 120 minutes
- ▶ Clinically gradual improvement with resolution of cognitive and personality changes
- ▶ MRI also improved

# CNS-Injury Radiation Myelitis

***Material and Method:*** A 51-year-old female patient with a diagnosis of multiple myeloma in 2006 received a dose of 30 Gy to a spinal field encompassing vertebral levels T6-L1. The patient had had thalidomide and Decadron prior to radiation as systemic therapy. She underwent two stem cell transplants at the University of Michigan by December 2007, and some two years later developed the onset of back pain and tingling in the left lower extremity, and motor/sensory loss in the right lower extremity (an incomplete Brown Séquard's syndrome). Spinal MRI demonstrated a non-specific signal increase on T-2 weighted images at vertebral level T-8 and T-12 felt to be consistent with but not pathognomonic for radiation induced myelitis. The patient was evaluated (e.g. CXR) and began daily Hyperbaric Oxygen Therapy (HBOT) consisting of 2.5 ATA, 90 minutes, with air breaks.

# Outcome Myelitis Tx

By twelve HBOT visits she had adverse effects on her vision; with improved motor function in the right lower extremity. By twenty four HBOT visits her lower extremity(s) subjective and objective findings had stabilized and she was able to travel to a family reunion. Upon restart of HBOT (treatment #32) her vision had returned to normal, and she was capable of participating in physical therapy with improved motor function in her right lower extremity. By 40 HBOT visits her right foot drop had resolved. She was discharged from the HBO department.

- Serial MRIs show resolution

A

P



F

A



P

32 cm

32 cm

F