CASE STUDY #1: VESTIBULAR REHABILITATION

CASE HISTORY: 53 year old female "life skill professional" who works with developed mentally disabled adults. Presents with complaints dating back to date of injury 4 months prior. She grabbed a male in his forties around his waist to prevent him from falling and the patient who is manic depressive forcibly put his right elbow square into her mouth, which resulted in knocking out two of her lower front teeth, and loosing other which required dental work, and prescribed Vicodin from the treating dentist. In 24 hrs. she started vomiting 3 times per day for the next 2 _ days, and then sought treatment at the local ER. She reports the ER physician was not able to help her, nor was her first occupational medicine physician. A second occupational medicine physician evaluated her with referral to PT which she reports that it helped her neck pain/AROM, and not dizziness or tinnitus. She was referred to an ENT physician 2 months after the injury, who wished to monitor her symptoms for 6 weeks; symptoms where unchanged and he then referred her to me for Vestibular rehabilitation. Her remaining symptoms of dizziness are accentuated by head position: looking up, and also lying down. Denies any prior problems with dizziness or any upper or lower extremity paresthesias;
Diagnostic Imaging: none. **Past Medical History**: breast cancer in 1994, with yearly check ups and doing well. Lumbar surgery (procedure unknown) in the 1990's. Has daily back pain. Saw Dr. I. Howard Fine for her vision and is checked out normal. She describes her original pain as frontal and suboccipital pain.

INITIAL EXAMINATION
Occulomotor tests: normal for eye tracking, saccades, vengeance left eye deficit; Head thrust test: WNL.
Dizziness Handicapped Inventory (DHI) score: 28 (60+= high risk for a fall)
Dynamic gait index (DGI) score: Deferred secondary to normal gait.
Motion sensitivity quotient (MSQ) score = 19.53 (MSQ = 0-10 mild, 11-30 moderate, 31-100 severe).
Vertebral Artery Ischemia (VBI) screen: Vertebral artery test in standing WNL: Hautard's: positive left mild.
Coordination: Romberg put feet together WNL; Sharpened Romberg eyes open poor balance bilaterally.
Hallpike-Dix (-) for nystagmus, however rising up from a table brings on dizziness/nausea to the point of vomiting. (This movement is part of the MSQ testing.)
Cervical Special Tests: Cervical head retraction: nausea almost to the point of vomiting.

Cervical AROM	2/12/04	3/29/04	AMA Guidelines
Flexion:	60º dizziness	75º	Flex: 70
Extension:	35º dizziness/nausea	81º	Ext: 80
SB: (L)	50º bilaterally	60º	SB: 90
SB: (R)	50º bilaterally.	63º	Rot: 45
Rot: (L)	88º	90º	
Rot: (R)	72º"with R lower neck muscle tension."	90º	

TREATMENT RESULTS: Patient seen TOTAL 7 visits over 6 weeks. As of last visit she reported "full recovery".

DISCUSSION: Signs and symptoms suggested origin of symptoms from the upper cervical spine. Vertebrobasilar ischemia was unable to be completely ruled out due to a mild (+) Hautard's test and nausea to the point of vomiting with head retraction and rising from supine causes me to be very concerned about the overall stability of the upper cervical spine. This was not tested due to her high irritability level. Due to patient seeing 4 physicians with no diagnostic imaging, a CT scan of the upper cervical spine was recommended to rule out sinister pathology. This came back normal, and physical therapy was continued without problem and having full recovery.

Jeff Giulietti, MPT, ATC, CSCS, COMT