Role of Vestibular Rehabilitation in Acute Care: A Case Study

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Background & Purpose: More than 2 million people visit the emergency department (ED) in the US for complaints of dizziness. The ED costs for patients with dizziness are estimated to exceed $4 million annually. Vestibular rehabilitation can improve a patient’s quality of life and reduce the handicap caused by dizziness. A thorough bedside evaluation of the dizzy patient can help distinguish the etiology of the dizziness. The purpose of this case study is to support the role of early physical therapy (PT) in evaluating and treating the dizzy patient.

Case Description: A 47-year-old male with an extensive cardiac history was admitted due to worsening dizziness after being hit in L temporal area. CT showed sub-acute to chronic lacunar infarcts-Troponin I slightly elevated but at baseline -Admitted to telemetry-PT consulted on hospital day 1 -CT angiogram negative on day 2-Heart rate 60s- Orthostatic hypotension (-)-Strength within functional limits for all four extremities-Neurological screen within normal limits (WNL)-Independent for bed mobility, transfers and ambulating 130’ without head turning-Needed minimal assistance to recover from 2 losses of balance (LOB) when ambulating with head turns-No history of dizziness, complaints of diplopia, ear ringing or headache; reports feeling of “falling” or body moving with head turns to LVestibulo-ocular reflexWNLSmooth pursuitWNLSpontaneous & gaze evoked nystagmus(-)Provocation Test(-)Roll Test(-)Dix-Hallpike Test(+) to R (symptoms lasted 20seconds)PT Intervention- Treated with canalith repositioning maneuver- 2 repetitions performed

Outcomes: The patient complained of dizziness and sensation of falling on first trial but had no similar complaints on the 2nd trial. He was later observed ambulating independently in hallway with head turns and no LOB. He reported resolution of all symptoms after PT intervention. PT recommended outpatient vestibular rehabilitation follow-up. The physician deferred stress test to outpatient testing.

Discussion: The patient made remarkable improvement in symptoms and mobility after just one PT session. PT was consulted on day 1 after admission to telemetry and many tests may have been avoided if PT was consulted in the ED or on observation unit. Overuse of CT and meclizine has been shown in the literature. Early PT consults may help decrease hospital cost as well as decrease length of stay. By increasing involvement of physical therapists in evaluating the dizzy patient and awareness of consulting PT earlier, physical therapists may play a major role in reducing hospital costs.