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Vestibular Rehabilitation for Balance Disorders and Dizziness Following a Head Injury

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Editorial

After a concussion, managing vertigo and balance issues is extremely difficult. This study looked at how vestibular rehabilitation helped persons with concussions feel less lightheaded and improve their walking and balance. One of the most common neurologic diseases that affect children and young people is concussion. The term "concussion" is equivalent to "mild TBI" (traumatic brain injury), according to the Centres for Disease Control and Prevention. According to the description given by the Centres for Disease Control and Prevention (CDC), a concussion is a complicated pathophysiologic process brought on by traumatic forces secondary to direct or indirect forces to the head that impairs brain function. This impairment of brain function is frequently accompanied with typical structural neuroimaging results (i.e., computed tomography scan, magnetic resonance imaging). Physical, cognitive, emotional, and/or sleep-related symptoms are produced, and it may or may not cause a loss of consciousness. The time that symptoms last might range greatly, from a few minutes to several months or even longer in certain situations. Loss of consciousness, forgetfulness, and confusion are among conditions that could prolong recovery, but our knowledge of this problem is still quite restricted [1].

In the first few days following injury, 23 percent to 81 percent of concussion cases have been observed to experience dizziness, which is a common concussion symptom. The prevalence of persistent dizziness following a mild traumatic brain injury has been estimated to range substantially, from 1.2 percent at 6 months to 32.5 percent at 5 years. 5–8 after a concussion, poor balance and postural instability have been documented in numerous studies9–11 and have been linked to a problem with sensory integration. There are few reports of vestibular and balance rehabilitation in the therapy of concussions, despite the high occurrence of dizziness and balance problems in persons who have had a concussion. 14–17 The fact that many times symptoms pass fast before referrals to tertiary physicians can be made accounts for a portion of the absence of information. In one research, more than 75% of high school football players who sustained concussions returned to play within 3 weeks. Although Shepard et al., noted that the duration of vestibular rehabilitation is longer in people with head injury compared with unilateral peripheral vestibular dysfunction, the use of vestibular rehabilitation in the treatment of concussion-related vertigo and balance dysfunction has been promising [2].

It is unknown whether toddlers and adults who have suffered concussions experience the same degree of dizziness and balance issues. Additionally, it is unknown if toddlers and adults recover from vertigo and balance issues to the same extent after concussions. 19–21 Children may not be as resistant to the biochemical alterations brought on by concussions as adults are, and as a result, children and adults may experience distinct aftereffects from impacts of the same magnitude. Furthermore, it is unclear what impact children's postural tactics and on-going, rapid cognitive development will play in the healing process. This retrospective study's goal was to assess the degree of dizzy symptoms, gait impairment, and balance issues that persons who were referred for vestibular therapy after a concussion reported. This study also looked into whether adults and children recovered at different rates during vestibular rehabilitation, as well as how vestibular therapy affected the reduction of vertigo, gait impairment, and balance dysfunction [3].

A specialised programme was created for each patient as part of the vestibular rehabilitation intervention to address their functional limitations and impairments in the areas of balance, gait, and ocular motor function. The categories of exercises that were most frequently offered in vestibular rehabilitation and in the home exercise programme were gaze stabilisation exercises, such as VORx1 [in which the person maintained a fixed gaze position while turning their head from side to side] while sitting and standing], standing balance, such as standing with their feet apart and together on foam while keeping their eyes open and closed, and walking with balance challenges, such as tandem walking and walking with head turns. Daily physical activity was advised [4].

Vestibular rehabilitation may lessen vertigo and enhance balance and gait after a concussion. Age was not a factor in the improvement for the majority of measurements, suggesting that both children and adults may benefit from vestibular rehabilitation. When treating those who experience post-concussion dizziness, gait problems, and balance issues that do not go away with rest, vestibular rehabilitation should be taken into account. At the initial evaluation and at weekly and monthly intervals, self-report and performance measurements were given. The initial examination and discharge ratings are among the time points taken into account for this report. The assessment at the time point closest to the first evaluation or discharge was used if a measure wasn't recorded at those points in time [5,6].

Conflict of Interest

None.

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