

The Comparison of Forward Head Posture Measurements between Dominant and Non-Dominant Sides in Male Football Players and Non-Athletes

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Abstract : Background and purpose: Ideal posture involves a minimal amount of stress or strain on various body segments which are aligned and worked in harmony to protect the body from injury or progressive deformity. One of most common faulty posture encountered in clinical setting is forward head posture (FHP) that was considered one of the main predictors for neck pain. Furthermore, FHP may predispose to thoracic outlet syndrome, temporomandibular joint dysfunction, shoulder pain and headache. The large financial burden related to neck disorders management raises the need to improve the quality of assessment and rehabilitation of FHP. So, the purpose of the study is to compare between measurements of FHP as indicated with craniocervical (CVA) and gaze angles assessed from dominant and non-dominant sides in football players who extensively use their dominant side and non-athletic subjects. Participants: Twenty-four subjects were divided into 12 football players and 12 non-athletic subjects. Methods: CVA and gaze angles were assessed through photogrammetric method. Photos were taken from dominant and non-dominant sides of the subjects while assuming standing position. Paired t-test was used to assess angles differences between dominant and non-dominant sides of the subjects. Since there were no statistical differences between CVA and gaze angles measured from dominant and non-dominant sides in each group, we pooled data together to become 24 measurements for each group (12 from dominant and 12 from non-dominant). Independent t-test was used to assess angles differences between football players and non-athletic subjects. Results: No significant differences were found between CVA and gaze angles measured from dominant and non-dominant sides of both groups ($P>0.05$). Also, there were no significant differences between CVA and gaze angles measured from football players and non-athletic subjects ($P>0.05$). Conclusion: FHP can be assessed from dominant or non-dominant sides interchangeably either in football players or non-athletic subjects. Furthermore, playing football has no impact on measurements of FHP when compared to non-athletic subjects.

Keywords : dominant side, forward head posture, football players, non-dominant side

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