

1996

Comparison of motion palpation of the cervical spine versus flexion/extension lateral view radiographs: A pilot study.

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Introduction: Underlying cervical instability has been suggested as a significant risk factor for cerebrovascular accident (CVA) associated with cervical manipulation. Instability is a common missed diagnosis of the cervical spine. This investigation compared motion palpation of the cervical spine with flexion/extension lateral view radiographs (FELVR) to determine if motion palpation is effective in assessing cervical instability. **Methods:** Subjects were selected for this investigation (n=8) based upon a history of cervical trauma. Subjects received motion palpation in the supine and seated position and the findings were faxed to a registered nurse prior to any x-ray studies. The subjects were then referred to a neurosurgeon to perform and interpret the x-rays as an independent opinion while remaining blind to the motion palpation findings. The two sets of data were compared at a later date. The investigation will be ongoing. **Results:** There were no cases of cervical instability. The motion palpation correctly detected mild hypermobility in 63% of the cases, missed hypermobility in 25% of the cases, and missed hypomobility in 25% of the cases. The correct vertebral level was identified in 60% of the detected cases and conversely, the incorrect level was identified in 40% of the same subset. The incorrect level was always one vertebral level off. **Conclusions:** Motion palpation is a good method of determining hypermobility and is undetermined as an exclusive method of determining cervical instability. If cervical instability is a factor in post manipulation CVA, then this catastrophic sequel should cause providers to perform FELVR. Continuing study and intra and interexaminer reliability will be assessed.

Poster presentation

1996 ACBSP Chiropractic Sports Sciences Symposium.

Atlanta, GA

Published in Journal of Sports Chiropractic and Rehabilitation 1996, Vol 10 No 3:147.