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
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