ABSTRACT

Validity of the Manual Shear Test in Determining Degenerative Disc Disease in the Lumbar Spine

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Purpose

The purpose of this study was to determine the degree of agreement between Magnetic Resonance Imaging findings and Anterior Lumbar Shear Test findings of degenerative disc disease.

Methodology

The research design employed in this study utilized a predictive format in which Shear Test findings were used to predict MRI findings.

Subject selection utilized a 'blinded' approach in which prospective subjects were referred to the researcher with no information regarding their MRI findings. Prospects were included in the study if they did not violate any of the exclusion criteria.

The data analysis technique employed was the Chi Square statistic that compared the degree of agreement between shear test and MRI findings.

Findings

The results of the shear test agreed with the MRI results in 34 of the subjects where both measures were positive for degenerative disc disease, and agreed in four of the subjects where both measures were negative for degenerative disc disease.

Results of the shear test disagreed with the MRI results in nine of the subjects where the shear test was negative and the MRI was positive for degenerative disc disease, and in three of the subjects where the shear test results were positive for degenerative disc disease and the MRI results were negative.

The Chi Square analysis indicated that the degree of agreement between the shear test and MRI results was statistically significant.

Conclusions

The success of the current study is significant, because diagnosis of shear was based on manual palpation alone, thus, clinically, it can be a valuable tool when combined with subjective complaints and objective findings to provide the clinician with important information to guide the treatment of patients with low back pain.

Recommendations for further research include more therapists (inter-tester reliability), recruit a larger sample size, include flexion-extension radiographs, and obtain more detailed information on medical history and/or pain distribution.