Abstract

BACKGROUND: Thoracolumbar spine (TLS) injuries have an incidence rate of 5% in blunt trauma patients. The Eastern Association for the Surgery of Trauma published Practice Management Guidelines for the Screening of Thoracolumbar Spine Fracture in 2007. The Practice Management Guidelines Committee was assembled to reevaluate the literature. METHODS: A search of the United States National Library of Medicine and the National Institutes of Health database was performed using MEDLINE through PubMed (www.pubmed.gov). The search retrieved English-language articles from March 2005 to December 2011 that referenced traumatic TLS injuries and fractures. The questions posed were the following: (1) What is the appropriate imaging modality to screen patients for TLS injuries? (2) Which trauma patients require radiographic screening for TLS injuries? (3) Does a patient who is awake and alert without distracting injuries require radiologic workup to rule out TLS injuries? RESULTS: Thirty-seven articles that referenced traumatic TLS injuries in association with screening published between March 2005 and December 2011 were collected and disseminated to the committee. Twelve were found to be relevant. Nine publications from the previous 2006 guidelines were reviewed and referenced to create and validate the updated guidelines. CONCLUSION: Practice patterns have changed regarding screening blunt trauma patients for TLS injuries. Software reformatted multidetector computed tomographic scans are more sensitive and accurate than plain films. Multidetector computed tomographic scans have become the screening modality of choice and the criterion standard in screening for TLS injuries. The literature supports a Level 1 recommendation to validate this based on a preponderance of Class II data. Patients without altered mentation or significant mechanism may be excluded by clinical examination without imaging. Patients with gross neurologic deficits or concerning clinical examination findings with negative imaging should receive a magnetic resonance imaging expediently, and the spine service should be consulted. © 2012 by Lippincott Williams & Wilkins.

Author Keywords

blunt trauma; lumbar spine fractures; practice management guidelines; screening for traumatic thoracolumbar injuries; Thoracic spine fractures

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