Outcome of surgical and nonsurgical methods in the treatment of unstable traumatic lesions of the lower cervical spine.

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Abstract

BACKGROUND: One of the important issues in the diagnosis and treatment of patients with trauma to the cervical spine is the stability of injured segment of vertebral column. This study was performed to compare the success rate and capacities of nonsurgical (halo cast) versus surgical management of lower cervical spine injuries.

METHODS: Forty patients admitted to hospitals affiliated to Shiraz University of Medical Sciences, Shiraz, Iran with such injuries were divided into two equal groups (halo cast versus surgery). In each group, cases were divided into three categories, based on the type of lesion. The percentage of sagittal subluxation and the degree of sagittal angulation were chosen as the criteria for assessing the treatment outcome; each of these indices was measured on radiographical images, which were recorded at the time of admission and six months later.

RESULTS: Members of both groups showed significant improvements in the measured indices. The amount of correction in subluxation was not significantly different between the two groups; however, surgical approach resulted in a significantly better correction of angulation.

CONCLUSION: Nonsurgical approach can be an acceptable alternative to surgical correction in selected patients with various lower cervical spine injuries.