

LETTER TO EDITOR

Using Cervical Collar for Multiple Trauma Patients in Pre-Hospital Settings; a Letter to Editor

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Abstract

Relative neck fixation using neck collar for all trauma patients is among the pre-hospital measures emphasized by many of the existing protocols in dealing with these patients. As emergency medicine specialists, in many cases, at the time of trauma patients' handover from pre-hospital staff we have seen that neck collar has not been used during the transfer of patients to the emergency department. Therefore, the authors of this letter decided to study the rate of neck collar use and its consequences on these patients in the emergency department of Loghman Hakim Hospital for 1 year to document this experience. The present study was performed on 1000 patients with multiple trauma (75.3% male, 50% aged 20-40 years). The most common mechanism of trauma was falling with 245 (24.5%) patients, and level of consciousness was 13 or higher (based on Glasgow coma scale) in 715 (71.5%) cases. 466 (46.6%) cases had midline neck tenderness at the time of admission. Neck radiography findings showed that 329 (32.9%) patients had at least one fracture in their cervical vertebrae or spinous process. Among the patients with fractures in the cervical vertebra, fracture had most commonly occurred in the 7th cervical vertebrae (4.7%). Evaluation of patients in terms of neck collar usage rate showed that only 790 (79%) patients had a neck collar when entering the emergency department and 210 (21%) patients did not. The results of imaging showed cervical vertebrae or spinous process fracture in 67 (32%) of the patients who had been transferred to the hospital without a collar. Also, 262 (33.2%) of those who had a collar upon arrival, had cervical vertebrae fractures.

Out of the 210 patients who had been transferred to the hospital without a collar, 72 (34.3%) developed neurological deficits or whiplash injury, 2 (1%) died, and 136 (64.8%) were discharged from the hospital without any special complications. The results of this study confirm the assertion that all patients with multiple trauma in pre-hospital conditions will benefit from wearing neck collar during their transfer to emergency department.

Key words: Scorpion stings; pulmonary edema; dyspnea; emergency service, hospital
