The Emergency Care in Spinal Cord Injuries

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Abstract

A high number of people in the world suffered from spinal cord injury (SCI). Spinal cord injuries are happen due to falls from height, accidents, climbing, sports and etc. Emergency care according to the standards not performed immediately after SCI. A significant enhancement in the number of mortality and complications was observed every year. The aim of this study is to prevent the mortality, neural injuries, hypoperfusion, ischemia, biochemical, and inflammatory changes. The first act in acute spinal cord trauma is to establish a secure airway with the fixing of the spine. Keeping the airway clear, oxygen supply, adequate ventilation, and maintain sufficient perfusion of the spinal cord must be noticed. Neurological damages may be occurred without proper fixation of the SCI. All victims of spinal cord trauma must be immobilized immediately and correctly (collar and splint and etc.). After stabilization of the airway and hemodynamic of the patient neurological status must be evaluated. Neurological injury can be distinguished from hemorrhagic shock by controlling pulse, temperature, urine output. Maintain blood pressure above 90 mmHg is necessary to prevent secondary ischemic injury. Stabilization of blood pressure is very important because low blood pressure hampers the development of microcirculation the spinal cord. While high blood pressure causes bleeding and edema (Arterial blood pressure should be 80-100 mmHg). Methylprednisolone protocol must be done after the evaluation and diagnosis of spinal cord injury. Fans rush in surgery believed that systemic effects of SCI decrease in the first 24 hours, but fans delay in surgery prefer to stable situation of neurological surgery. The results of this research revealed that promptly evaluation and management of SCI can considerably decrease the complications and mortality. Therefore, we can put treatment protocols of these patients in the emergency department and training nurses and physicians in this field.

Keywords: Spinal Cord Injury, Hypoperfusion, Ischemia.

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