SPINAL CORD CONTUSION AND NEUROREHABILITATION

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Abstract

The spinal cord is a vital part of the human body. As the vehicle responsible for carrying messages from the brain to the rest of the body and back again, even the smallest interference can be detrimental. Following a traumatic spinal cord injury (SCI), this bundle of nerves can become bruised, also known as a contusion.Spinal cord injury is a major cause of disability with devastating neurological outcomes and limited therapeutic opportunities Complications can include muscle atrophy, pressure sores, infections, and breathing problems.

D: T2-weighted sagittal image shows cord contusion (arrowhead), C3 C4 disc herniation with ALL rupture and prevertebral edema/hematoma (arrows).

Aim:

The aim of the case report is the early detection of SCI because of its severe complications

Material and methods:

A 40 year old man was investigated with paresthesis in both arms and severe neck pain, after traffic accident. The lateral radiograph and CT scan are without findings for trauma. MR – sagital T2 weighted images show a hiperintense lesion within the spinal cord on the level C3 - C4 with small hipointensse. This representes deoxyhemoglobin in an acute hematoma - cord contusion. The spinal cord is impinged at the level, demonstrating edema. The narrowed spinal canal is partialy due to thickening and bulding of the lig.flava. This is best accomplished with STIR sequence which should be included in all MRI protocols on spinal trauma. Neurorehabilitation, besides drug therapy, included kinesitherapy in two periods - a strict bed rest until the 1st month and a tonic period up to the 2nd month.

Conclusion:* *Indication for MRI in trauma includes neurologic deficitis or an injuri with a potential to produce neurologic deficit because cervical spine injuries can be devastating injuries particulary if not identified in a timely manner. Treatment starts with restricting further motion of the spine and maintaining adequate blood pressure.Other interventions vary depending on the location and severity of injury from surgery to neurorehabilitation and kinesitherapy. In many cases, spinal cord injuries require long-term physical, especially if it interferes with activities of daily living.

Key words: spinal cord, contusion, MRI, neurorehabilitation