

Should High-dose Methylprednisolone be Administered in the Treatment of Acute Spinal Cord Injury?

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On the basis of efficacy demonstrated in the National Acute Spinal Cord Injuries Studies (NASCIS I, II, and III) and the lack of other effective treatments for neurologic injury, high-dose steroids have been extensively used in the early treatment of acute spinal cord injury. In many countries, high-dose methylprednisolone has become the de facto standard of care for the treatment of acute spinal cord injury. However, recent contributions from evidence-based medicine have questioned the design of the NASCIS trials and their clinical implications, and also pointed out the harmful side effects of high-dose steroids.

In this "Points of View," Irene Rozet, MD, an anesthesiologist at Harborview Medical Center (a Level 1 Trauma Center for the Pacific Northwest), summarizes the evidence in favor of methylprednisolone for the treatment of acute spinal cord injury. From New York City, Sanford M. Miller, MD, points out the NASCIS study deficiencies and risks of serious side effects associated with high-dose steroids. Systematic reviews caution that high-dose methylprednisolone should be considered only as a treatment option, not as a standard or guideline for acute spinal cord injury, because of the weakness of clinical evidence in its favor.^{1,2} Everyone agrees that there is an urgent need for more randomized controlled trials. However, when faced with an acutely injured quadriplegic 16-year-old individual, would you still administer high-dose methylprednisolone? Is treatment worth the risks?

REFERENCES

1. Bracken, MB. Steroids for acute spinal cord injury. *Cochrane Database Syst Rev.* 2002;CD0001046.
2. Hugenholtz, H, Cass, DE, Dvorak, MF, et al. Short C: high-dose methylprednisolone for acute closed spinal cord injury—only a treatment option. *Can J Neurol Sci.* 2002;29:227–235.