

Introduction

Spinal Cord Injury (SCI) is a devastating condition with very few treatment options. Surgical decompression of the spine after injury has been shown to improve outcomes, however the optimal timing of surgery is a matter of debate.

Methods

We collected data from 78 patients with SCI. Based on the time to surgical decompression, we grouped patients into an ultra-early group (decompression within 12 hours of presentation), an early group (within 12-24 hours), and a late group (> 24 hours). We compared the improvement in AIS grade from admission to discharge in each patient group.

Results

The patients who received surgery less than 12 hours after presentation had a significant improvement in AIS grade from admission to discharge, as well as a higher absolute AIS grade at discharge. There was no difference in AIS grade for patients who received surgery 12-24 hours after presentation and those who received surgery >24 hours after presentation.

Conclusions

These data suggest that ultra-early (<12 hrs) surgery is not only superior in terms of neurologic recovery, but also that early surgery (12-24 hrs) is no different than later surgery (>24 hrs).

Learning Objectives

The goal of this retrospective analysis is to determine the optimal time to surgery after SCI.

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