

# 以甲基去氫氧化可體松治療急性外傷性脊髓傷害病人的再 評估

## Reappraisal of Methylprednisolone Treatment for Acute Traumatic Cord Injury

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### 摘要

使用甲基去氫氧化可體松(methylprednisolone)來治療急性外傷性脊髓損傷，仍然是充滿爭論的方法。本研究的目的是探討此種治療方法的醫療資源消耗、運動機能改變和併發症發生的情形。研究對象是選擇自公元 2000 年 6 月至 2001 年 5 月共 12 個月間，首次住院的新發生急性外傷性脊髓損傷共 110 名病患，首先比較使用及未使用甲基去氫氧化可體松兩組間共 13 項人口學及臨床特徵（自變項），然後再比較並分析兩組間共 10 項預後指標（依變項）的差異。此 13 項人口學及臨床特徵包括年齡、受傷原因、合併傷害數、修正後外傷分數、格拉斯哥昏迷指數、平均血壓、脊髓傷害的節數、完全性及形態、脊椎手術的數目及方式、接受復健治療的人數及受傷至住院間天數。研究結果顯示，上述兩組間 13 項人口學及臨床特徵中，僅受傷至住院間天數此自變項呈現明顯差異( $P=0.024$ )。使用甲基去氫氧化可體松會有較多的感染併發症發生( $P=0.038$ )，但在其他與醫療資源消耗和運動機能改變有關的預後指標上，兩組間並無明顯差異。以使用劑量來進行分層分析，結果顯示高劑量甲基去氫氧化可體松不但會增加加護病房住院天數( $P=0.021$ )和接受氣管切開術人數( $P=0.005$ )，同時會增加肺炎( $P=0.004$ )的發生機會。所以我們認為，雖然使用甲基去氫氧化可體松會增加感染併發症的機會，但不會明顯增加住院中的醫療資源消耗。由於兩組間的死亡率並無明顯差異，所以使用甲基去氫氧化可體松應是安全的治療方法。但對於運動機能的改善則並未呈現明顯的改變。

### Abstract

Objective: The value of methylprednisolone (MP) treatment in acute traumatic spinal cord injury (SCI) remains controversial. We attempted to evaluate the utilization of resources, motor function recovery and adverse effect after the use of MP. Methods: We compared 13 demographic and clinical characteristics between MP and non-MP treatment groups in 110 patients with acute traumatic SCI treated in hospitals between June 1st, 2000 and May 31st, 2001, and analyzed 10 short-term outcome variables. These demographic and clinical characteristics included age,

cause of injury, number of associated injuries, Revised Trauma Score, Glasgow Coma Scale, mean blood pressure, level/completeness and pattern of SCI, number and types of spinal surgeries, frequency of rehabilitation therapy and the time interval between trauma and admission. Results: The MP (64.5%) and non-MP (35.5%) treatment groups showed no significant differences in all characteristics except the time interval between trauma and admission ( $P=0.024$ ). MP treatment was associated with a higher frequency of infectious complications ( $P=0.038$ ), but there was no difference between the two treatment groups in other outcome parameters. The results of analysis stratified by dosage of MP showed that the length of ICU stay ( $P=0.021$ ) and the number of tracheostomies ( $P=0.005$ ) and pneumonia cases ( $P=0.004$ ) were increased significantly in the standard dose group. Conclusions: Although the rate of infection had risen in patients receiving MP, the steroid treatment did not significantly increase utilization of resources during hospitalization and appeared safe in terms of mortality. However, it had not been proven to improve motor function recovery..