Preventive strategies of secondary spinal cord injury caused by subaxial cervical trauma.

Liu RD, Jia CQ, Fu Q, Liang F, Yang J. Department of Spine and Joint, The Shengjing Hospital of China Medical University, Shenyang 110004, Liaoning, China.

Abstract

OBJECTIVE: To summarize and analyze preventive strategies of secondary spinal cord injury caused by subaxial cervical trauma.

METHODS: From April 2004 to April 2009, 67 patients with secondary spinal cord injury caused by subaxial cervical trauma were retrospectively analyzed. There were 40 males and 20 females, with an average age of 40.5 years old ranging from 18 to 69 years. After admission the preventive strategies included using MP and GM-1, early decompression, and high pressure oxygen after operation. The neurological function was classified by Frankel, and the therapeutic effect was evaluated by total recovery rate and useful recovery rate. The total recovery rate was that the level of Frankel raise one or more grade, the useful recovery rate which included Frankel D, E was that the patient can walk by self or crutch, remaining some neurological deficits.

RESULTS: All patients were followed up for 1 to 3 years (averaged 1.5 years), the total recovery rate was 53.7% (36/67), the useful recovery rate was 35.8% (24/67). Seven patients was death, the death rate was 10.4% (7/67), 1 was aggravated, the aggravating rate was 1.5% (1/67).

CONCLUSION: As possible as using MP, GM-1, early decompression, and high pressure oxygen after operation can be effective strategies for preventing secondary spinal cord injury caused by subaxial cervical trauma.