

Safety and efficacy of granulocyte colony stimulating factor in a patient with tetraplegia caused by cervical hyperextension injury: a case report

Okurowska-Zawada B.¹, Kułak W.¹, Sienkiewicz D.¹, Paszko-Patej G.¹, Dmitruk E.¹, Kalinowska A.¹, Wojtkowski J.¹, Korzeniecka-Kozerska A.²

¹ Department of Pediatric Rehabilitation and Centre of Early Support for Handicapped Children “Give a Chance”, Medical University of Białystok, Poland

² Department of Pediatrics and Nephrology, Medical University of Białystok, Poland

ABSTRACT

The authors present the case of a 17-year-old boy who suffered a cervical spinal injury as a result of the sharp bending of the head after slipping (without falling). After about 30 minutes, he began to feel tingling in the limbs and he developed tetraparesis. He went through physical rehabilitation, psychological rehabilitation, occupational therapy, and periodic catheterization. Additionally, we introduced to him a low dose of analog granulocyte colony-stimulating factor (G-CSF).

G-CSF 5 µg/kg was given subcutaneously daily for 5 days per month for 3 months, again after 6 months, and again after 10 months. The boy could sit indecently and walk with assistance. A significant increase in muscle strength in this patient with tetraplegia after 10 months of treatment may indicate beneficial effects of G-CSF in this disorder.

Key words: Cervical hyperextensiosn, spinal cord injury, tetraplegia, male
