INTRATHECAL BACLOFEN APPLICATION FOR THE TREATMENT OF PERSISTENT ANTIGRAVITY PATTERN DUE TO SEVERE CNS-TRAUMA

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Patients who suffer from severe head and brain injury often develop severe spasticity, which is caused by a disinhibition of certain brainstem structures from superior control centres. This leads to development of an antigravity pattern with increased flexor tone in the upper limbs and increased extensor tone in the lower extremities. Most of these patients do not respond sufficiently to conventional therapeutic measures: oral antispastic agents and physiotherapeutic treatment. The persistence of this condition leads to complications and decreases the chance of successful rehabilitation and reintegration. Baclofen effectively reduces exaggerated stretch reflexes and muscle tone after oral and intravenous administration and is widely used in the treatment of "spinal spasticity". In "supraspinal spasticity" it is less effective and higher doses are needed. To prevent side effects due to systemic overdose the intrathecal application of baclofen was introduced by Penn and Kroin.

We treated six patients with persistent antigravity pattern due to severe CNS-trauma with baclofen intrathecal. A positive response was proved by clinical evaluation and polymyography after lumbar injection of up to 100 ug baclofen under intensive care conditions. A drug device system was implanted in patients who showed a good response to enable long-term treatment. We observed a marked reduction of tendon taps, a good effect on muscle tone and positive effects on motility and urinary function. Precautions which have to be considered when using this technique are especially pointed out.

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ABSTRACT BOOK

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