

Pharmacological treatment of spasticity

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The treatment of spasticity should strictly follow functional considerations in modern neurological rehabilitation. The therapeutic team will develop a multi-level treatment program for spasticity, with drugs being only one of several options. Oral antispastic medication seems to have lost influence over the last years, at least in stroke rehabilitation. Painful muscle twitches related to spasticity and functionally incapacitating cloni may be an indication, and a close monitoring of the patients at the beginning of the treatment is helpful to detect fatigue and muscle weakness as well known side effects. A new promising option is gabapentin. Botulinum toxin A and B are first choice in the treatment of focal spasticity. The "Rote Liste" names adult upper limb flexor spasticity and CP-related equinovarus deformity as labelled indications. For stroke patients with upper limb flexor spasticity, several controlled trials showed a muscle tone reduction, ease of personal hygiene and pain reduction in the verum group following the injection of BTX-A. Motor control did not differ between the verum and placebo groups. BTX-B and a highly purified toxin are currently under investigation. A new, old and rather cheap alternative is the neurolytic treatment of focal spasticity with phenol 5%. The EMG-guided local injection of the N. musculocutaneus or N. tibialis resulted in an immediate muscle tone, effects could last up to 8 months, potential side effects in up to 10% of subjects were a regional dysaesthesia. The intrathecal application of baclofen, long established in the treatment of severe spinal spasticity, has now also been tested in the spasticity management of CP children, and stroke patients. Controlled trials are warranted.