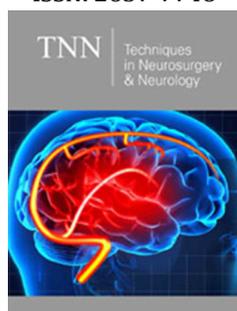


# Spasticity Treatment Strategies in Multiple Sclerosis

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## Mini Review

Yoga, aquatherapy and stretching can be used to manage mild levels of spasticity in the patients with multiple sclerosis. In more severe cases which spasms interfere with normal functions and sleep, drug therapy would be indicated. As monotherapy, Baclofen can be the first choice which stimulates the GABA receptors. Administration of Baclofen with the initial dosage of 5 to 10mg three times a day and in case of necessity, increasing the administered dosage to achieve a therapeutic response or reaching the maximum tolerated dosage which can be more than 100mg in some patients, can be a good therapeutic strategy. Nocturnal spasms can be controlled by bedtime administration of the drug. Sedation, muscle weakness and confusion can be the side effects of the Baclofen which can make its clinical usage, limited.

Bladder function may be improved or worsened unpredictably during treatment with Baclofen. When the daily dosage of administration of Baclofen is more than 30mg, abrupt discontinuation of the drug is prohibited because of the risk for occurring withdrawal syndrome which its clinical picture includes seizures, confusion etc.

Tizanidine as an a-adrenergic agonist can be another treatment option. It is best to be initiated very slowly which is started with 2mg at bedtime and gradually increased and adjusted to a maximum dosage of 12mg three times a day. Dry mouth, orthostatic hypotension and sleepiness are the main side effects of treatment with Tizanidine. Occurrence of motor weakness with Tizanidine treatment is lower than treatment with Baclofen. Combination therapy with low doses of Tizanidine and Baclofen can be effective with successful therapeutic results.

Benzodiazepines and Gabapentin can be another treatment options due to their muscle-relaxant effects. Continuous intrathecal Baclofen administration can be used in cases with severe spasticity. Injection of Botulinum toxin can also be used for spasticity treatment in occasional cases, although its effectiveness for larger muscle groups is not so much. Also, for such cases, there are some technical difficulties which make treatment with Botulinum toxin injections, limited.

Dantrolene sodium, Clonidine and Cyproheptadine-among others-can also be used to treat spasticity in the patients with multiple sclerosis [1-11].

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