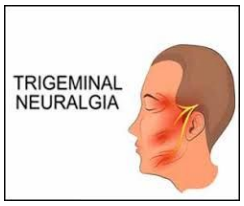
Dextroamphetamine-Amphetamine: a therapeutic treatment in patients suffering with **Trigeminal Neuralgia**



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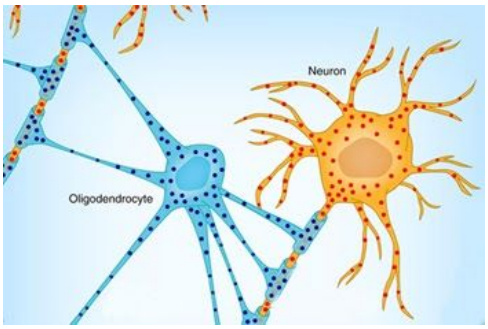

Trigeminal neuralgia (TN) or tic douloureux is a rare chronic pain condition affecting the Trigeminal nerve, the 5th cranial nerve which carries sensation from the face to the brain. Trigeminal neuralgia is a syndrome of unilateral, paroxysmal, stabbing facial pain. Any mild stimulation to the face such as makeup application or shaving could trigger a jolt if excruciating pain. Careful history of typical symptoms is crucial for diagnosis as it is often misdiagnosed as a tooth or ear ache. Many current treatment medications have side effects including sedation, dizziness, nausea, vomiting, diplopia, memory problems, ataxia, elevation of hepatic enzymes, and hyponatremia. Dextroamphetamine-Amphetamine (DA) is traditionally used therapeutically to treat attention deficit hyperactivity disorder. DA promotes norepinephrine and dopamine reuptake into the presynaptic neuron therefore increasing the release of dopamine and norepinephrine into extraneuronal spaces and increasing the number of oligodendrocyte progenitor cells. Oligodendrocytes are important because they produce myelin. Our study shows that DA effect can help with remyelination of the sensory fibers and therapeutically treat the underlying cause of TN.

We took a small group of patients (5) with trigeminal neuralgia and treated with DA at two dose levels, each period lasting for 30 days. A single-blind technique was used, the patients being unaware of the dose changes. The pain score was determined by the patients at the end of each week. There was a correlation between the dose and duration of DA given. In all the patients except one achieved a pain score of zero at the end of 30 days with a DA dosage of 10mg TID. One patient who was studied twice (10mg ended with a pain score of 2 and 10mg with a pain score of zero with 20mg.

TN is a neuropathic pain resulting from the deterioration of the nerve's myelin sheath. It causes intense pain that can be physically and mentally incapacitating. DA increases the availability of dopamine which are found to be low in patients with chronic pain. Dopamine can increase oligodendrocytes which promote myelin formation making it a promising pharmaceutical which could treat nerve injury causing TN.

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