Use of botulinum neurotoxin in painful trigeminal neuropathy attributed to a multiple sclerosis plaque: a case report

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Introduction: Painful trigeminal neuropathy attributed to a multiple sclerosis (MS) plaque is a disabling and difficult to manage condition. Recent evidence suggests a potential role for botulinum neurotoxin (BoNT) in trigeminal neuralgia (TN). We present a case of refractory painful trigeminal neuralgia attributed to a MS plaque with a good response to BT.

Case report: 48, male, presents with recurrent daily episodes of electric shock-like pain on the right mandibular division of the trigeminal nerve, triggered by innocuous stimuli, with persistent background facial pain since 2012. Brain MRI revealed multiple lesions fulfilling the McDonald criteria for MS diagnosis, with one lesion on the pons adjacent to the trigeminal nucleus. Patient began immunomodulatory therapy with glatiramer acetate and for the neuralgia, he was prescribed carbamazepine (CBZ) and gabapentine (GP), which were progressively increased up to CBZ 400mg 3id and GP 300mg 3id. Due to side effects his medication was progressively altered to GP 800mg 3id and oxcarbamazepine 600mg 3id. Due to inadequate pain control, it was further added baclofen 25mg 2id, misoprostol 0.2mg 3id, phenytoin 100mg 3id, without achieving pain remission. Other drugs were initiated and then suspended due to intolerance or inefficacy (venlafaxine, lamotrigine, lacosamide). Abobotulinum toxin-A (Dysport®) was initiated (60 units, 20u/site intramuscular, 30G needle, 3/3 months). The patient reported significant reduction in pain frequency (80%) and on the intensity of the background facial pain and is currently reducing pain medication.

Conclusion: Whilst BoNT remains a controversial option for TN, there is growing evidence supporting its use.
Figure 1. Brain MRI.