Botulinum Toxin Injection in Truncal Dystonia: Time to Take Note

Truncal dystonia leads to significant distress to the patient and poses difficult therapeutic challenge to clinicians. Truncal dystonia is not rare but surprisingly, there is not enough data available to guide an approach to diagnosis or treatment. Camptocormia (flexion dystonia of trunk) was found in 7% of patients with Parkinson's disease and the prevalence increases with the severity of the disease.[1] As high as 26% of patients with multiple system atrophy reportedly present with Pisa syndrome (lateral truncal flexion).[2] 17% of progressive supranuclear palsy patients reported to have axial dystonia in extension.[3] Patients with tardive syndrome, Wilson's disease, neurodegeneration with brain iron accumulation, and some other genetic form of dystonia may have prominent truncal involvement. A subset of patients presents with isolated idiopathic truncal dystonia.

Does this phenomenon need a special mention?—the answer would be a clear "yes"; there is no doubt that truncal dystonia causes fair share of disability and distress when present. Unfortunately, the response to medications is generally not satisfactory. Since the availability of botulinum toxin for the treatment of dystonia, truncal dystonia has been treated with the injection with variable result. The groups of Cynthia L. Comella and Joseph Jankovic, respectively, published their experience on the safe and effective use of botulinum toxin injection for this condition.[4,5] After more than a quarter century of usage, truncal dystonia still remains an off-label indication for botulinum toxin injection. The onus is on the neurologists and industry to generate enough data to help regulatory approval of botulinum toxin injection in truncal dystonia.

In this issue of Annals of Indian Academy of Neurology, Mehta *et al*. shared their experience with truncal dystonia and treatment with botulinum toxin injection.[6] The varied etiology of the patients in their series reflects the need for proper evaluation when one deals with truncal dystonia. Promising improvement in the patient-perceived subjective outcome following the treatment was observed without any adverse effect. The degree of improvement in their patients has clinical value as these patients were refractory to medicines. Moreover, the injection procedure required focusing on only two muscles: paraspinals and recuts abdominis. These are large muscles and injecting them is not challenging at all. It is difficult to standardize the dose of botulinum toxin in truncal dystonia (or any other dystonia). The dosage needs to be individualized depending upon the clinical severity and degree of muscle hypertrophy. Usage of various formulations of botulinum toxins in available studies also makes the comparison difficult. Abobotulinum toxin has been reported to have greater spread than Onabotulinum or Incobotulinum toxin.[7] Whether this leads to better clinical efficacy in treating large muscles remains unknown.

To sum up, the findings of the study by Mehta *et al*.[6] are clinically relevant and will encourage the clinicians to use botulinum toxin injection in the treatment of truncal dystonia and document their experience.

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References

1. Tiple D, Fabbrini G, Colosimo C, Ottaviani D, Camerota F, Defazio G, *et al*. Camptocormia in Parkinson disease: An epidemiological and clinical study. J Neurol Neurosurg Psychiatry 2009;80:145-8.
2. Barone P, Santangelo G, Amboni M, Pellecchia MT, Vitale C. Pisa syndrome in Parkinson's disease and parkinsonism: Clinical features, pathophysiology, and treatment. Lancet Neurol 2016;15:1063-74.
3. Barclay C, Lang A. Dystonia in progressive supranuclear palsy. J Neurol Neurosurg Psychiatry 1997;62:352-6.
4. Comella CL, Shannon KM, Jaglin J. Extensor truncal dystonia: Successful treatment with botulinum toxin injections. Mov Disord 1998;13:552-5.
5. Azher SN, Jankovic J. Camptocormia: Pathogenesis, classification, and response to therapy. Neurology 2005;65:355-9.
6. Mehta S, Ray S, Chakravarty K, Lal V. Spectrum of truncal dystonia and response to treatment: A retrospective analysis. Ann Indian Acad Neurol 2020;23:644-8.
7. Hexsel D, Brum C, do Prado DZ. Field effect of two commercial preparations of botulinum toxin type A: A prospective, double-blind, randomized clinical trial. J Am Acad Dermatol 2012;67:226-32.

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