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Short Communication

*Corresponding author
Abdulrazzaq Alobaid, MD, FRCSC
Chief of Spine Surgery
Chief of Orthopedic Casualties
Alrazi Hospital-Kuwait
Chairman of Faculty Orthopedics & Post Graduate Training
Kuwait Institute for Medical Specialization (KIMS)
Orthopedic Spine Surgeon-Canadian Board Certified
P.O. Box 1160, Surra 45712, Kuwait
E-mail: dralobaid@hotmail.com

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The Use of Botulinum Toxin-A for Neck Pain

Abdulrazzaq Alobaid, MD, FRCSC*

Kuwait Institute for Medical Specialization (KIMS), P.O. Box 1160, Surra 45712, Kuwait

Botulinum Toxin Type-A (BoNT-A) is widely used and has been approved in the field of facial esthetic as well as in some neurological conditions. Its neurotoxin protein produced by bacteria called *Clostridium botulinum* as this two chain protein blocks the acetylcholine release at the NMJ through its action of the SNARE proteins which by this will temporarily inhibit striatal muscle contraction. There are different commercially available preparations like; OnabotulinumtoxinA (BOTOX®), AbobotulinumtoxinA (Dysport®), and RimabotulinumtoxinB (Myobloc®).

Recently, there was an interest in utilizing it for muscular neck pain and headache. These conditions can be chronic and difficult to treat. Although there are more consensus on migraine and cervical dystonia, the literature showed conflicting results and conclusions.[1,2] A randomized double-blinded study showed a trend toward improvement in the BOTOX® group.[3] Another prospective study showed a significant reduction of pain intensity in patients receiving BoNT-A for refractory neck pain.[4] One more randomized controlled study for chronic neck pain after "whiplash" injuries were demonstrated a statistically significant reduction in pain for the patients who were treated with BoNT-A compared with placebo.[5] Contradicting results were found on other studies where the injected BoNT-A failed to provide significant improvement of neck pain. In a randomized, double-blinded study, injection of BoNT-A were directly triggered to the points did not improve cervicothoracic myofascial pain.[6] Although many studies have shown it to be safe, the adverse effects remains a concern among physicians using these injections.

The role of direct injection of trigger points with BoNT-A for neck pain and spasm is still under progressive research and study. There could be a beneficial role for BoNT-A as an alternative treatment for resistant cases with chronic pain refractory to other modalities. Now-a-days, the clinical practice should follow evidence based medicine. A clear protocol including the type of toxin injected, suggested dose, concentration, and methods of injection should be established. A multi-centered study with controlled variables could help get more clear results.

REFERENCES

1. Argoff CE. The use of botulinum toxins for chronic pain and headaches. *Curr Treat Options Neurol*. 2003; 5: 483-492. doi: 10.1007/s11940-996-0016-8

2. Sycha T, Kranz G, Auff E, Schnider P. Botulinum toxin in the treatment of rare head and neck pain syndromes: a systematic review of the literature. *J Neurol*. 2004; 251 Suppl 1: i19-i30. doi: 10.1007/s00415-004-1106-8

3. Lew HL, Lee EH, Castaneda A, Klima R, Date E. Therapeutic use of botulinum toxin type a in treating neck and upper-back pain of myofascial origin: A pilot study. *Arch Phys Med Rehabil*. 2008; 89(1): 75-80. doi: 10.1016/j.apmr.2007.08.133

4. Miller D, Richardson D, Eisa M, Bajwa RJ, Jabbari B. Botulinum neurotoxin-A for treatment of refractory neck pain: a randomized, double-blind study. *Pain Med*. 2009; 10 (6): 1012-1017. doi: 10.1111/j.1526-4637.2009.00658.x

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5. Freund B, Schwartz M. Treatment of chronic cervical-associated headache with botulinum toxin A: A pilot study. *Headache*. 2000; 40: 231-236. doi: 10.1046/j.1526-4610.2000.00033.x

6. Ferrante FM, Bearn L, Rothrock R, King L. Evidence against trigger point injection technique for the treatment of cervicothoracic myofascial pain with botulinum toxin type A. *Anesthesiology*. 2005; 103: 377-383. Web site. http://anesthesiology.pubs.asahq.org/article.aspx?articleid=1941955. Published August, 2005. Accessed March, 2016.