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Effect of Botox (Botulinum Toxin) on Pain Management for Patiant Suffering from Temporomandibular Joint Disorder & Migraine

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ABSTRACT
This study conducted among 100 patients, 50 of them with TMJ disorder and the other 50 with migraine during 12 months 2020 -2021.
The study aims to shed light upon Botox using in pain management with patients with a history of migraine and pain due to TMJ disorder, or we can say TMJ pain.
Botox is effective for migraine headaches because it blocks neurotransmitters, which bring pain signals from the brain. Botox acts as a barrier in that direction. It prevents the chemicals from reaching the nerve endings in the head and neck.
Botox is inserted into seven separate muscle areas around the head and neck to prevent migraine headaches. The forehead, bridge of the nose, temples, neck, back of the head, and just above the shoulder blades in the upper back are all affected.
In patients with chronic migraine, a response rate of 65 per cent is expected after three courses of treatment with onabotulinumtoxin A (Botox). Long-term therapy with onabotulinumtoxin A, according to a new report, is reliable, safe, and well-tolerated in patients.
Botox can help relax the muscles in your jaw.
Botox for TMJ can be highly effective. One 2012 study found that Botox treatments significantly decreased pain and increased mouth movements for three months following the treatment. Another study found that symptoms improved in 90 per cent of participants.
The effects will last anywhere from three to five months, depending on the patient. Patients will experience a reversal of facial structure and TMJ disorder symptoms as the Botox fades off and the masseter muscle expands.

Keywords: Botox, TMJ disorder , MIGRAINE

INTRODUCTION

Botox "(onabotulinum toxin A)" was approved in July 2010 to treat chronic migraines(1) by the medicines and healthcare products regulatory agency(2). Botox is not effective in treating other types of cephalalgia "(e.g. episodic migraine, tension-type headache,(3) cluster headache)" the facts beneath silhouette the confirmation of applying botulinum toxin in migraine.(4)

The "temporomandibular joint" is a hinged synovial joint that connects the mandible to the temporal bone at the skull base; Its posterior border is the external auditory canal's anterior border(5,6). The TMJ is a synovial joint with an articular disc that acts as both a hinge and a sliding joint(7,8). As a result, it is classified as a "ginglymoarthrodial joint". The masseter, temporalis, and medial pterygoid muscles work together to keep the mandible's centripetal force of jaws stable(9,10,). The activity of the lateral pterygoids and digastric musculature causes hijacking or jaws spacing(11).

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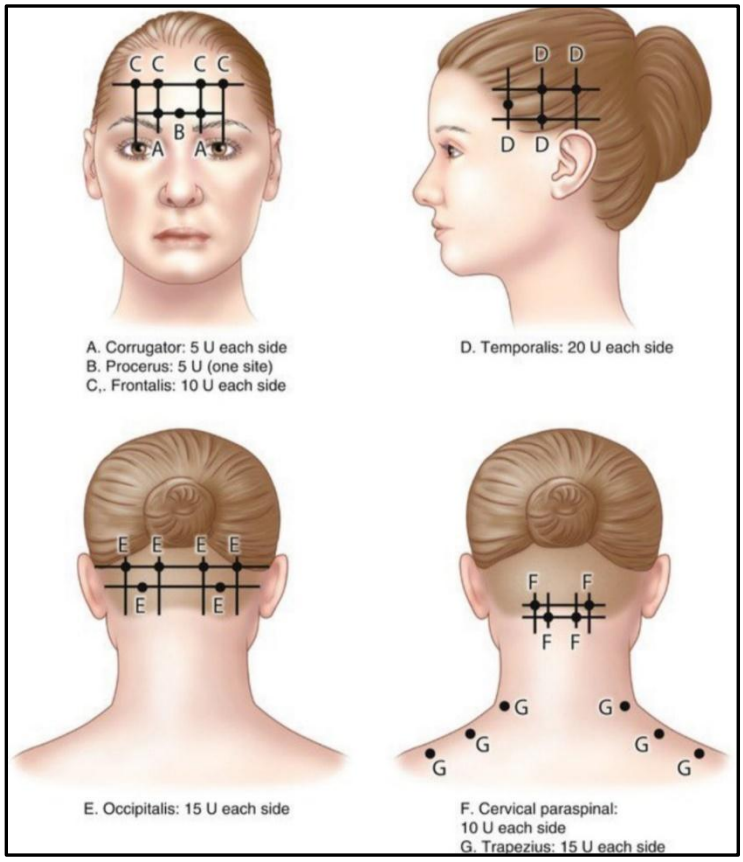
The frequency of TMJ disorder is about 30% and 44%, uplift to 25% of the public look for expert supervision for TMJ disorder(12,13). Headache, discomfort in the anterior to the auricle of the ear, neck pain, reduced jaw outing, and jaw security are all common symptoms associated with pain near the joint. TMJ disorder is classified as either myofascial TMJ disorder or arthrogenic TMJ disorder (14). Excessive masticatory muscle activity, which leads to chronic myositis, is linked to myofascial TMJ disorder . In contrast, arthrogenic TMJ disorder is associated with intracapsular pathology and pain at the joint's level(15,16,17).

MATERIALS AND METHODS

The study was carried out on February 2021 in Al_kaffel hospital. The research carried with 100 patient.

50 of them with TMJ pain, and the other 50 patients with migraine.
Botox is inserted into “7” specific muscles in the head and neck to help prevent migraines from occurring. zones involve(18,19)

1. Forehead.
2. The back of the head.
3. Temples.
4. The upper back, behind the shoulder blades.
5. Neck.
6. Nose bridge.



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Botox may aid in moderate the muscles of the jaws(20). so botox for TMJ is very successful. These cases outcome may endmost all over about 3_5 months(21). When botox starts to fade and masseter muscle dilates(22,23), patients can observe the row back of facial construction and TMJ disorder.

RESULTS AND DISCUSSION

Based on the questionnaire involved 100 individuals, This study shows 65% response rate for chronic migraine patients after three courses using Botox. The current study showed that the percentage is not equivalent between those who have received the treatment and those who did not receive it. Fifty patients had a median of twenty days of headache every month, and about eighteen of them were sharp. These cases indicated Botox take at stable-site, fixed-dose injections every twelve weeks for Fifty-six weeks. Those injections add to seven particular zones of the head and neck, with a dose of about 155-195 units. After six months, at two therapeutics, those Whose injected with Botox got about eight fewer days of migraine every month. After 12 months, 70% of those injected with Botox had ≤50% of the headaches rate before injection. The common side effects are neck ache (6.7%), muscular frailty (5.5%), and fall of the eyelid (3.3%). No significant irreparable side effects noticed in the case of Botox in headache.

Also, about 50 patients suffer jaw pressure and pain throughout speaking, ingesting, drinking, and ordinary habitual. As given to facial muscles stressed with tenderness and stiffness, botoxlessens TMJ and jaw rigidity for those patient, this non-invasive process are conducted in al_kaffel hospital and procedure doesn't need a hospital stay. 90% of patients should undergo observation within 1-7 days.

Just the zones administrated to Botulinum Toxin will be "lessen." Botulinum Toxin medicament for TMJ treatment will not work on other areas in the body. The injections are mainly given to the temporalis, frontalis and masseter muscles besides and other areas can be administrated. Botulinum toxins may cause the sharpness of headaches.

- The botox is the second choice as a therapy for TMJ disorder, like jaw tension and headache.
- 80% of the study population (TMJ pain and migraine patients) got a good response for botox injection

CONCLUSION

This study has discussed

1. The chronic headaches and TMJ disorder facing the population.
2. The vital information to reveal these problems by a non-surgical method.
3. The effectiveness and duration of treatment,

In conclusion, This paper provides injecting Botox sites in a specific area with a particular dose, the percentage of response to the treatment, furthermore, the cosmetic effect of Botox

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