EFFICACY OF FLEXIBLE INCOBOTULINUMTOXINA TREATMENT INTERVALS IN A PATIENT WITH MYOFASCIAL PAIN IN UPPER CROSS SYNDROME

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OBJECTIVE

Botulinum neurotoxin is one of the therapeutic options for pain management in myofascial pain syndrome, with improvements in functionality and quality of life (QoL). This case study investigated incobotulinumtoxinA (Xeomin), injected at flexible intervals, in a 51-year-old woman (90kg body weight) with fibromyalgia, cervicalgia and upper cross syndrome pain.

INTRODUCTION

Myofascial pain syndrome (MPS) is a musculoskeletal disorder characterized by pain that may ocurr in any striatal muscle of the human body associated with restricted painful regions (trigger points) in the taut band generating local or referred pain. MPS treatment is multi-dimensional and includes physiotherapy, acupuncture, patient education, chronic pain support programs,etc., including treatment with botulinum neurotoxin type A (BNT-A).

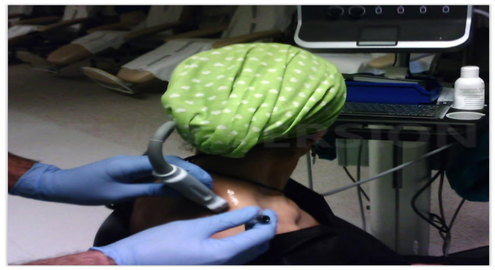
The recommended administration interval for BNTA is 12 weeks, but the re-emergence of pain before this fixed interval reduces patients satisfaction with the treatment. The current manufacturers' SmPCs suggest that the minimum period before repeating the treatment should be 10–12 weeks. However, the original recommendation (which most subsequent trials followed) was based on very few patients (n = 28) and outcomes, and was using the original formulation of BNT-A which carried a higher risk of developing immunoresistance due to its higher protein load (1).

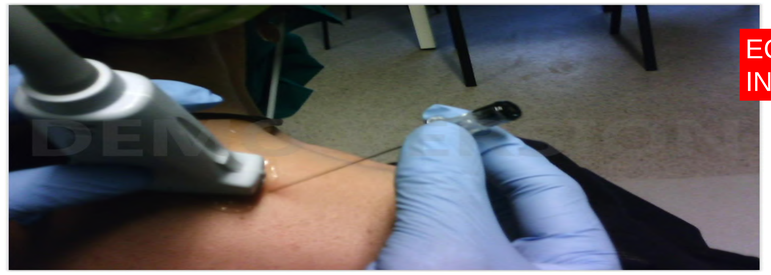
Increasingly, patients and physicians find that an injection schedule with fixed intervals of 12 weeks may not be appropriate for all patients and a patient satisfaction survey conducted in patients with cervical dystonia treated with OnaBNT-A or AboBNT-A has also shown that patient satisfaction with treatment very much declines prior to re-injection, and many patients (46 %) would prefer an injection schedule of less than 12 weeks (2).

METHODS

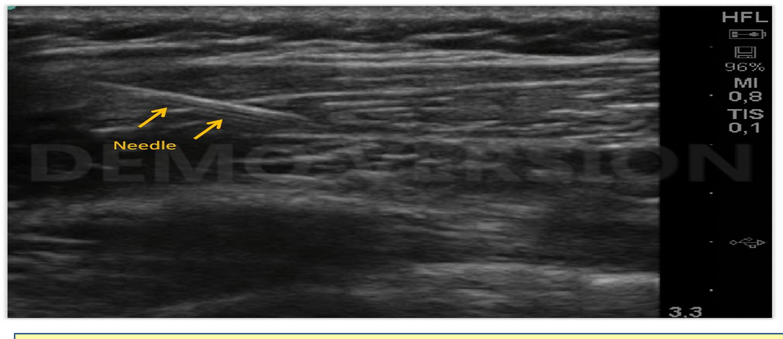
We present here a case report of a patient diagnosed of fibromyalgia, pain after low back surgery and MPS, possibly secondary to impairment of intervertebral discs in segment C5-D4, who received INCOBNT-A at flexible intervals (one of less tan 12 weeks) according to her needs, making it possible to reduce the concomitante oral treatment..

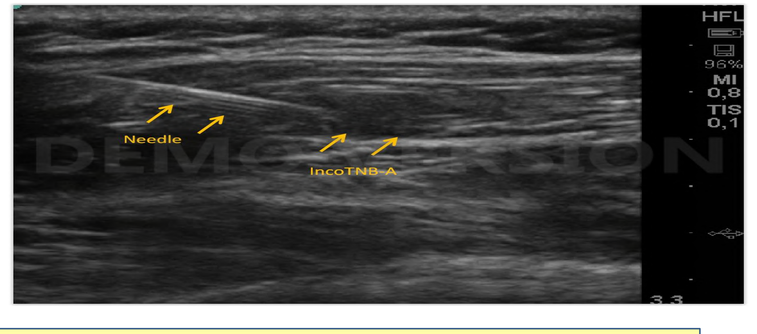
Initially, oral treatment (hydromorphone 4mg/24h, duloxetine 30mg/24h, gabapentin 300mg/8h) was used to control chronic pain. Gabapentin was changed to eslicarbazepine 800mg/24h due to poor tolerance. After unsuccessful arthroscopic shoulder surgery, three injections of local anaesthetics (LA) and corticosteroids (CS) (levobupivacaine 0.25%, mepivacaine 1.5%, betamethasone depot 6mg) into the bilateral trapezius were performed over 8 months with analgesic effects lasting ≤3–4 weeks. Due to poor tolerability of oral treatment, and the short duration of analgesic effect with LA+CS injections, the patient subsequently received three injections of INCOBNT-A (≤100U) into the bilateral trapezius over 7 months with intervals according to clinical need (14 weeks between injections 1–2 and 8 weeks between injections 2–3).





ECO-guided LOCAL INJECTION TREATMENT





PREVIOUS TREATMENT

ORAL TREATMENT
Hydromorphone 4mg/24h
Duloxetine 30 mg/24h
Eslicarbazepine 800 mg/24h

Change due to poor tolerance

CURRENT TREATMENT

ORAL TREATMENT
Oxycodone/naloxone (15/7.5 mg/12h)

LOCAL INJECTION TREATMENT (Bilateral trapezius)
Levobupivacaine 0.25%
Mepivacaine 1.5%
Betamethasone depot 6 mg

Change due to poor efficacy

LOCAL INJECTION TREATMENT (Bilateral trapezius)
INCOBNT-A 100 U at flexible intervals according to symptomatology (pain)

RESULTS

The patient was diagnosed by Nuclear Magnetic Resonance showing joint dysfunction, particularly at the atlanto-occipital joint, C4-C5 segment. In consequence, MPS of shoulder girdle (upper cross syndrome pain) secondary to biomechanical alteration of cervical spine.

The patient reported improved and longer-lasting pain control with INCOBNT-A compared to LA+CS injections. The intervals needed for LA+CS injections were of only 3-4 weeks due to reappareance of pain already at this time, whereas with INCOBNT-A the intervals used were longer, of about 8-14 weeks. Discontinuation of oral duloxetine and eslicarbazepine and afterwards, during the INCOBNT-A treatment, only having oral treatment with oxycodone/naloxone (15.0/7.5 mg/12h) increased tolerability to oral medications. In addition, the patient reported an increase in QoL with combined incobotulinumtoxinA treatment and physical activity. No side effects were reported after the administration of INCOBTN-A treatment.

CONCLUSIONS

This complex case of fibromyalgia, cervicalgia and upper cross syndrome pain with a low probability of achieving a strong analgesic effect is a clear example of how individualized treatment is required for the treatment of MPS, allowing improvement of pain scores and also in certain facets of quality of life in patients experiencing severe cervical and shoulder girdle myofascial pain after the injection of BNTA directly into painful muscle groups. In this patient, the combination of INCOBNT-A injections at flexible intervals of ≤12 weeks and physical activity allowed a reduction in oral analgesia medication and increased the QoL impaired by chronic pain. This is in agreement with recent studies showing that the treatment of myofascial trigger points in patients with shoulder pain using BNT-A improves symptomatology in these patients.

REFERENCES

1. Greene P, Kang U, Fahn S et al (1990) Double-blind, placebo- controlled trial of botulinum toxin injections for the treatment of spasmodic torticollis. Neurology 40:1213–1218
2. Sethi KD, Rodriguez R, Olayinka B (2012) Satisfaction with botulinum toxin treatment: a cross-sectional survey of patients with cervical dystonia. J Med Econ 15:1–5