EXPERIENCE OF TREATMENT WITH BOTULINUM TOXIN TYPE A IN PATIENTS WITH TRIGEMINAL NEURALGIA.

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Objectives

Determine the pain reduction in patients affected with Trigeminal Neuralgia (TN) after treatment with Botulinum Toxin Type A (BTX-A)

Methods

An observational-prospective study of patients with TN who attended the Pain Unit of Ciudad Real Hospital, between March and October 2015, they had been receiving at least 6 months of adequate medical treatment without improvement.
Each patient was given an injection of BTX-A, needle 16 x 0,5 mm, points above and below the zygomatic, 20 IU per point, and facial trigger points, 10 IU per point, maximum 3.
The result was generated by comparing the VAS pre-treatment and after 3 months.

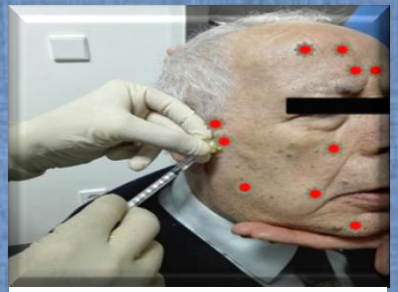

Fig.1: Method of injection of BTX-A in facial trigger points

DISCUSION

TN is characterized by brief electric-shock-like attacks of pain, abrupt in onset and termination and limited to the distribution of one or more branches of the trigeminal nerve. Drug therapy is often limited by lack of efficacy and side effects. Radiofrequency carries risks of infection, bleeding, nerve injury and intracranial hemorrhage.
The pharmacological mechanisms of BTX-A in reducing neuropathic pain are still unclear and include blocking nociceptor transduction, the reduction of neurogenic inflammation by inhibiting neural substances and neurotransmitters, and the prevention of peripheral and central sensitization. Subcutaneous injections of BTX-A is a treatment option for TN with probable improvement in visual analogue scale (VAS) score ¾, and expected duration of at least 3 months, representing a potential long-term treatment.

Results:

Fifteen subjects (13 women and 2 men) were included. Age range 35–87 years old. 11 (73,3%) who underwent radiofrequency previously.
Patients experienced significant reduction of the initial VAS (M=9.73) after treatment with BTX-A (M= 4.53, paired *t test*, p<0.0005)

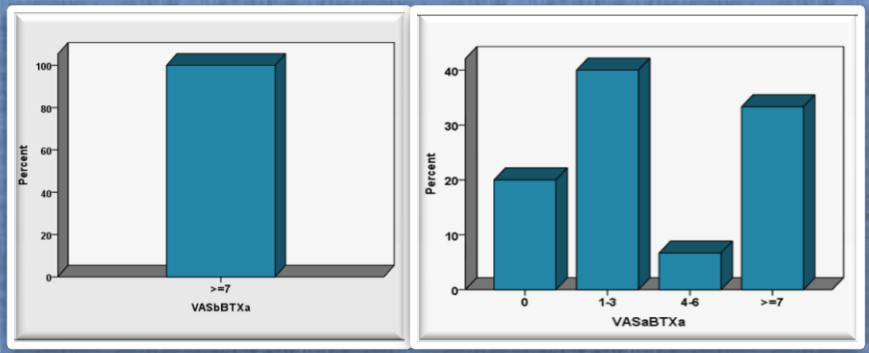

Fig.2: Percentaje of patients in groups of VAS (0: No pain,1-3 Low pain, 4-6 moderate pain, >=7 Severe pain) Before (VASbBTXa) an After (VASaBTXa) injection with BTX-A

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	VASbBTX - VASaBTX	5,2000	3,7834	,9769	3,1048	7,2952	5,323	14	,000

Fig.3:Paired Samples Test (paired *t Test)* p<0.0005

Conclusion

Injection with BTX-A should be given as an alternative to conventional treatments in patients with TN; due to its cost benefit, reduction of the VAS and few side effects.

References:
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