

# Botulinum Toxin A in the preventive treatment of chronic migraine; experience in Argentine headache center

N Larripa – M Grandinetti – D Calvo – V Nagel – MT Goicochea. Headache Clinic. Department of Neurology: Fleni



## Introduction and objective

Chronic migraine (CM), is defined as at least 15 headache days per month, with a minimum of 8 of them with migraine features, during the last three months (ICHD). In 2010, the use of a Botulinum Toxin type A (BoNTA), was approved as a preventive treatment for this neurologic disease. Its use has spread and, currently, it corresponds to a pharmacological tool in patients with CM. Its main mechanism of action is by blocking the exocytosis of algogenic peptides and excitatory substances such as substance P, CGPR and glutamate, in the synaptic gap of nociceptive afferents. In our country there is scarce information published about the response to this treatment. The objective of this study is to describe our experience in the headache service in Argentina, with the administration of BoNTA as a preventive treatment for CM

## Materials and methods

A retrospective analysis was performed by reviewing the digital medical records of all patients from the Headache Clinic, treated with BoNTA between January and December 2021. Patients  $\geq 18$  years old were included, with at least 1 application of BoNTA according to the dose and points included in the PREEMPT protocol. Epidemiological data, coexistence of acute headache medication overuse, duration of treatment (year of initiation, number of application), number of previous oral preventives received, evolution during treatment, number of headaches days per month, days of analgesics per month, were evaluated. We consider non responder patients if they had less than 30% reduction of headache days per month after 3 treatment cycles. The review of adverse events and patient reported wearing off effect of the therapeutic benefit of BoNTA was registered. For data analysis, the STATA/14.0 program was used.

## Results

The records of **394 patients** were analyzed. 91% were female (fig. 1), mean age 46 (range: 18-85). 66% (n 241) had coexisting medication overuse (fig.2). All patients had received at least one previous oral preventive treatment, with a median number of preventives of 3.

42% of the patients analyzed were carrying out applications two years ago, 20% more than two years ago and 37% were starting treatment (1-3 applications).

82% (n 317) had already received 3 or more applications. 40% (n160) reported deterioration at the end of the dose, 4% (n15) reported some adverse effect associated with the application, without being a reason for discontinuation of treatment (Fig.3). 162 patients kept a headache diary, 65% of which responded with a  $\geq 50\%$  reduction in headache days/month and 15% had a  $\geq 30\%$  decrease in the frequency of headache days per month (Fig.4). 34% reversed the overuse of analgesics.

Gender

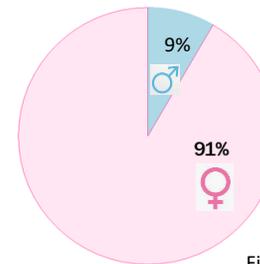


Fig.1

Analgesic Overuse

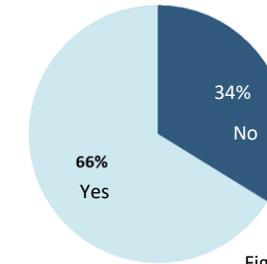


Fig.2

Adverse Events

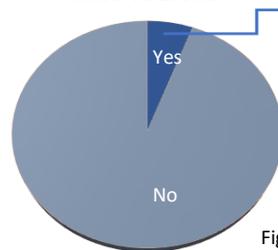


Fig.3

N15  
4%

- Cervical Tension. n5
- Myofascial pain in trapezoids. n2
- Weakness in neck extensors n2
- Pain at the point of infiltration n2
- Mild bilateral palpebral ptosis n1
- Complaint in aesthetics. n1
- Hypotension in procedure n1
- Pustule at 1 point of inf. n1

N162 kept Headache Diary

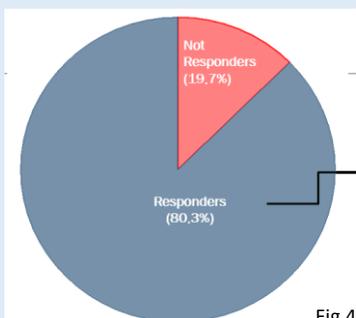
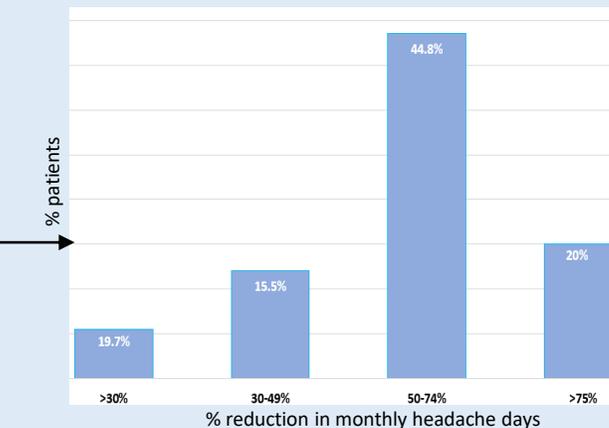


Fig.4



## Conclusions

In local clinical practice BoNTA has an important role in the treatment of CM, high percentage of patients reduce the headache day per month and days of acute headache medication. It is an effective and well tolerated treatment for CM