ACUTE TREATMENT OF TRIGEMINAL NEURALGIA WITH INTRAVENOUS PHENYTOIN IN ARGENTINA: A RETROSPECTIVE STUDY

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Introduction

Trigeminal neuralgia (TN) is a chronic condition characterized by pain exacerbations, for which acute treatment options have limited supporting evidence. In our experience, intravenous (IV) phenytoin (PHT) has been used with good effectiveness.

Objectives

Evaluate the clinical factors associated with response to acute treatment with PHT.

Methodology

This is a retrospective study which analyzed 72 cases of patients who presented with acute pain to the emergency department and received IV PHT as rescue treatment. Patients over 18 years old with a diagnosis of trigeminal neuralgia according to the International Classification of Headache Disorders (ICHD-III) criteria were included. Data was collected from patients evaluated between 2012 and 2022. Demographic and clinical data were collected, including disease duration, etiology, affected trigeminal nerve branch, pharmacologic treatment at the time of consultation, prior surgical history, and PHT dose administered. Patients were divided into two groups: responders and non-responders, based on pain reduction of at least 50% from baseline. A comparative analysis between both groups was subsequently performed.
The study was approved by the Ethics Committee of the Hospital Italiano, with a waiver of informed consent.
STATA Software v.17.0 was used for statistical analysis.

Results

The median age was 71.5 years. The majority were female (n=61, 84%). The median disease duration was 7 years. The predominant etiology was idiopathic (n=38, 52%), followed by classical etiology (n=29, 40%).
A total of 61 patients (84%) responded to PHT, while 11 patients (16%) did not respond. When comparing the two groups, responders were younger than non-responders (median: 71 vs. 77 years, p = 0.04). No significant differences were found in other evaluated parameters (Table 1).

Table 1:

	Total sample n=72	Nonresponders n=11	Responders N=61	p
Age. years, median (IQR)	71.5 (62-79)	77 (72-81)	71 (61-76)	0.04 *
Female sex, n (%)	61 (84%)	11 (100%)	50 (81%)	0.19
Disease duration. years, median (IQR)	7 (3-10)	7 (3-8)	7 (3-10)	0.47
Classical etiology, n (%)	29 (40%)	2 (18%)	27 (44%)	0.09
Idiopathic etiology, n (%)	38 (52%)	7 (63%)	31 (51%)	
Secondary etiology, n (%)	5 (7%)	2 (18%)	3 (5%)	
Right-sided laterality, n (%)	50 (69%)	7 (63%)	43 (70%)	0.72
Affected branch, n (%)				0.6
V1, n (%)	5 (7%)	0 (0%)	5 (8,2%)	
V2, n (%)	6 (8%)	0 (0%)	6 (9,8%)	
V3 , n (%)	45 (62%)	8 (72%)	37 (60,6%)	
V1+V2, n (%)	4 (5%)	0 (0%)	4 (6%)	
V2+V3, n (%)	12 (17%)	3 (28%)	9 (14,7%)	
CBZ/OXC , n (%)	21 (29%)	4 (36%)	17 (28%)	0.53
PGB/GBP, n (%)	37 (51%)	6 (54%)	31 (50%)	
Combination therapy, n (%)	9 (12%)	0	9 (14%)	
Prior surgery, n (%)	22 (32%)	5 (45%)	17 (27%)	0.29
Dose (mg/kg), mean		5.6	4.4	

IQR (Interquartile Range)
*Fisher Test

Conclusion

Age may influence the response to PHT treatment, with younger patients being more likely to respond positively.

References
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