TREATMENT OF TRIGEMINAL NEURALGIA EXACERBATIONS IN ARGENTINA: A RETROSPECTIVE ANALYSIS

Anrriquez F, Micucci D, Guevara K, Borras V, Beccaluva L, Martin Bertuzzi F, Doctorovich E.
Adult Neurology Service, Hospital Italiano de Buenos Aires.

Introduction

Trigeminal neuralgia (TN) is a chronic condition characterized by pain exacerbations, which often lead to emergency department (ED) visits and are associated with significant morbidity. Evidence for acute treatment is limited.

Objectives

To assess the effectiveness of intravenous phenytoin (PHT) and tramadol as acute therapeutic options, as used in our experience in the ED

Methodology

This retrospective study included patients over 18 years old with a diagnosis of TN according to the criteria established by the International Classification of Headache Disorders (ICHD-3), evaluated in the ED between 2012 and 2022, and who received either IV PHT or tramadol as first-line acute treatment.

Demographic and clinical data were collected, including time since diagnosis, etiology, dose administered, prior chronic treatment, prior surgical treatment, and ED re-visits within 90 days. The primary outcome was pain relief following drug infusion, defined as a reduction of at least 50% from baseline pain level.

A comparative analysis between the two treatment groups was conducted.

The study was approved by the hospital ethics committee with a waiver of informed consent.

Statistical analysis was performed using Stata v.17.

Results

A total of 102 ED episodes corresponding to 47 patients were included. The median age was 70 years (interquartile range 62–81), with a predominance of female patients (86%). Regarding etiology, 56% were idiopathic TN, 37% classical TN, and 7% secondary causes. The average disease duration was 8 years.

Pain relief was observed in 57% of the 38 patients who received tramadol, and in 82% of the 64 patients who received PHT , a statistically significant ($p < 0.05$). The mean dose was 55 mg for tramadol (range 50–100 mg) and 266 mg for PHT (range 100–1000 mg). No serious adverse effects were recorded.

The 90-day ED revisit rate was lower among patients who received PHT, although not statistically significant (41% vs. 50%).

No significant differences in baseline demographic or clinical variables were found between the two treatment groups.

Table 1:

	Tramadol	Phenytoin	p
N	38	64	
Age, years, median (IQR)	71 (62-83)	72 (62.5-80)	0.9
Female sex, n (%)	34 (89%)	54 (84%)	0.56
Disease duration, years, median (IQR)	7 (3-11)	7 (3-10)	0.67
Classical etiology, n (%)	14 (36%)	23 (35%)	0.99
Idiopathic etiology, n (%)	21 (55%)	36 (56%)	
Secondary etiology, n (%)	3 (7,8%)	5 (7,8%)	
Previous surgery, n (%)	6 (15%)	19 (29%)	0.15
Response, n (%)	22 (57.%)	53 (82%)	0.003 *
Readmission within 90 days	11 (50%)	22 (41%)	0.5
Dose (mg), mean (range)	55 (50-100)	266 (100-1000)	

IQR (Interquartile Range)
*Fisher Test

Conclusion

IV phenytoin is more effective than IV tramadol in relieving acute pain associated with trigeminal neuralgia.

References
- Schnell S, Marrodan M, Acosta JN, Bonamico L, Goicochea MT. Trigeminal Neuralgia Crisis - Intravenous Phenytoin as Acute Rescue Treatment. Headache.
- Muñoz-Vendrell, A., Teixidor, S., Sala-Padró, J., Campoy, S., & Huerta-Villanueva, M. Intravenous lacosamide and phenytoin for the treatment of acute exacerbations of trigeminal neuralgia: A retrospective analysis of 144 cases. Cephalalgia