Short Communication

Tizanidine in the management of trigeminal neuralgia

Steinar T Vilming, Torstein Lyberg, Xavier Lataste

Vilming ST, Lyberg T, Lataste X. Tizanidine in the management of trigeminal neuralgia. Cephalalgia 1986;6:181-182. Oslo. ISSN 0333-1024

In a double-blind study the efficacy and tolerability of tizanidine was compared with those of carbamazepine in the management of trigeminal neuralgia. Six patients were allocated to treatment with tizanidine and six to carbamazepine. After individual titration the maximum daily doses were 18 mg and 900 mg, respectively. Among the efficacy factors used, the visual analog scale (VAS) and the overall efficacy as assessed by patients and investigator turned out to be the most appropriate. The results indicate that tizanidine was well tolerated, but the effects, if any, were inferior to those of carbamazepine. • *Carbamazepine, tic douloureux, tizanidine*

Steinar T Vilming, Department of Neurology, and Torstein Lyberg, Department of Maxillofacial Surgery, Ullevål Hospital, University of Oslo, Oslo, Norway; Xavier Lataste, Sandoz Ltd., Medical Research Department, Basel, Switzerland; Correspondence to Steinar T Vilming, Statens arbeidsmarkedinstitutt, Sinsenun. 76, 0513 Oslo 5, Norway; *Accepted 2 April 1986*

For many years carbamazepine has been the drug of choice in the treatment of trigeminal neuralgia. More recently it has been reported that baclofen, a GABA derivative with myorelaxant and analgesic properties, is also effective, possibly by interaction with neurotransmitters such as substance P (1,2). Tizanidine, a new imidazole derivative, also has analgesic and myorelaxant properties (3, 4), and we have therefore in the present study compared the effects and tolerance of tizanidine with those of carbamazepine in trigeminal neuralgia.

A double-blind parallel group design was used. Twelve patients with typical trigeminal neuralgia (tic douloureux) between 47 and 72 years old (mean, 60 years) entered the study. Six patients were randomly allocated to tizanidine and six to carbamazepine. The medication was gradually increased during the first 12 days, and the patients received optimal medication for the following 9 days: 18 mg tizanidine or 900 mg carbamazepine daily in three divided doses. The following factors were evaluated: frequency, duration, and severity of attacks, relief of pain, and inability to participate in daily activities. Moreover, the pain situation was recorded

Table 1. **Overall efficacy of tizanidine and carbamazepine in the treatment of trigeminal neuralgia**

	Tizanidine		Carbamazepine	
Treatment groups	Investigator	Patient	Investigator	Patient
No. of patients	5	5	6	6
No efficacy (0)	3	3	2	2
Slight (1)	1	1	0	0
Moderate (2)	0	0	0	0
Good (3)	0	0	1	0
Very good (4)	1*	1*	3	4
Mean efficacy	1.0	1.0	2.5	2.7

* Probably due to a spontaneous remission.

daily on a visual analog scale (VAS). The patients were checked four times during the test period, and at each visit spontaneously reported side effects were noted and evaluated. The overall efficacy was assessed by the investigator and the patient at the end of the study when the test medication was withdrawn.

The VAS seemed to give the best impression of the pain situation throughout the study, and the other factors merely reflected what was shown by the VAS. Three of the six patients taking tizanidine discontinued taking the optimal dose prematurely, one because of unrelated disease and two because of intolerable pain. In the latter two cases carbamazepine was promptly effective when instituted. Only three patients in the tizanidine group completed the study as planned. In two of these cases no convincing effects were seen. However, both reported definite improvement when the medication was changed to carbamazepine. The last patient in this group quickly became free of symptoms but remained so also when the medication was discontinued, which suggests that a spontaneous remission had occurred and that a drug effect was not probable.

The evaluation of the overall efficacy is presented in Table 1 and reflects the results mentioned above. Tizanidine was generally better tolerated than carbamazepine, and few side effects were noted. Laboratory tests did not show any deviations that could be related to the test medication.

Thus, despite its well-established antinociceptive and myotonolytic properties, no convincing effects of tizanidine could be observed in tic douloureux.

References

1. Fromm GH, Terrence CF, Chattha AS, Glass JD. Baclofen in trigeminal neuralgia. Arch Neurol 1980;37:768-71

2. Fromm GH, Terrence CF, Chattha AS. Baclofen in the treatment of trigmenial neuralgia: double-blind study and long-term follow-up. Ann Neurol 1984;15:240-4

3. Coward DM. Selective relaxant properties of tizanidine and an examination of its mode of action. Triangle 1981;20(4):151-8

4. Bragstad A, Blikra G. Evaluation of a new skeletal muscle relaxant in the treatment of low back pain. Curr Ther Res 1979;26(1):39-43