

The comparative analysis of therapeutic efficiency of Glycine in complex therapy of patients with chronic vertebral-basilar insufficiency

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Abstract

The comparative analysis of therapeutic efficiency of Glycine, Tofisopam and Fabomotizole for the leading clinical manifestations of a condition of chronic insufficiency of cerebral circulation in vertebrobasilar system is carried out. The high antianxiety activity of Glycine comparable to similar action of Tofisopam, and superior to Fabomotizol, is observed. Also Glycine has better acceptability in comparison with other claimed as experimental preparations, and high efficiency in relation to clinical manifestations of restless legs syndrome.

Key words: chronic vertebral-basilar insufficiency, discirculatory encephalopathy, restless legs syndrome, Glycine.

Introduction

Chronic vertebro-basilar insufficiency (i.e., chronic cerebral ischemia in the vertebro-basilar system) is one of the most common nosological groups in ambulatory practice. Clinical manifestations are intellectual and cognitive disorders, changes in the psycho-emotional condition and personality, the development of motor disorders.

The aim of the study was to evaluate the therapeutic effectiveness of the use of glycine in daily doses up to 1 g by comparison with other anxiolytic drugs in an ambulatory practice for patients with chronic vertebro-basilar insufficiency (CVBI).

Material and methods

The study was carried out on the basis of the City Polyclinic № 38 of St. Petersburg. The study included 24 patients suffering from CVBI (G45.0) – 16 women and 8 men. The average age is 61.3 ± 1.4 years. The average duration of the disease is 8.2 ± 1.2 years. There were two groups of symptoms in the clinical performance:

- a) complaints of anxiety, emotional lability, etc., accompanied by dizziness, moderate ataxia, headaches, cognitive impairments, etc.
- b) restless legs syndrome (RLS) – a burning sensation, tingling in the legs, in most cases in the evening.

At the beginning of the study, all subjects received combination therapy with a dopaminergic drug and an anticonvulsant (Levodopa 250 mg +Carbidopa 25 mg, 1 tablet 2 times a day; Gabapentin 300 mg 3 times a day). Other psychotropic drugs were not taken at least 3 months before the start of the study.

To objectify the data established by the clinical observation, the following were used:

- the personal scale of manifestations of anxiety by J. Teylor [11];
- a scale for assessing the severity of RLS [10];
- scale of social functioning [12]

To clarify the somatic neurological condition the following were used:

- clinical blood tests, urine tests;
- biochemical blood and urine tests;
- ECG;
- Doppler ultrasound of the vessels of the neck and lower extremities.

The duration of the study was 30 days.

Patients were divided into 3 groups: 1st group received Fabomotizole in a daily dose of 30 mg (9 people); 2nd group – Tofisopam in a daily dose of 150 mg (7 people); and 3rd group — Glycine in a daily dose of 1.0 g (8 people).

Statistical processing of the research results was carried out using the *Statistica* program.

Results

Four patients prematurely stopped participating in the study – one patient from the 1st and one from the 3rd group (the reason is an allergic reaction in the form of urticaria) and 2 patients from the 2nd group (increased severity of the RLS).

In subjective assessments, patients of all comparison groups noted a decrease in anxiety and affect lability. The highest anxiolytic effect was demonstrated by Tofisopam, comparable effect was observed in Glycine, the smallest - in Fabomotizole (Fig. 1). At the same time, patients from the 3rd group (Glycine) often noted increased ability concentrate and better social activity.

In relation to RLS, the efficacy of Glycine is similar to that of Tofisopam, and is better than that of Fabomotizole (Fig. 2). Moreover, in patients taking Glycine, compared with those taking Tofisopam, the phenomenon of a paradoxical transient increase in the severity of RLS in the first week of therapy was less frequently observed. Also, patients in the groups treated with Tofisopam and Glycine shown the improvement in overall health more than the group of Fabomotizole (Fig. 3).

Discussion and conclusions

The study showed the high effectiveness of all three drugs in the treatment of anxiety and emotional lability, as the leading manifestations of CVBI. Glycine and Tofisopam showed higher anxiolytic activity. Glycine was more effective against the cognitive component of the disease. Glycine and Tofisopam have been found to be most effective in the treatment of RLS. At the same time, Glycine was better tolerated compared to other drugs.