

## **DETECTION OF EMOTIONAL DISORDERS BASED ON REGISTRATION ANALYSIS**

**Vysotska O.<sup>1</sup>, Rysovana L.<sup>2</sup>**

*<sup>1</sup>Kharkov National University of Radio Electronics, Kharkiv*

*<sup>2</sup>Kharkiv National Medical University,  
Kharkiv*

To date, cerebrovascular pathology (CVP) is 30-35% of all diseases of the circulatory system, 40% of all brain diseases, and, importantly, it accounts for 14% of all deaths. In Ukraine there are about 3 million patients with cerebrovascular diseases of various forms, of which 40% are persons of working age. Over the past 10 years, the growth rate of chronic forms of cerebral vascular pathology increased by 2 times [1].

One of the main reasons for the development of this pathology are emotional disorders that contribute to a change in the hormonal background with subsequent changes in hemodynamic processes [2].

The importance of early detection of emotional disorders is due to the need to prevent cerebrovascular pathology, as well as the timely launch of comprehensive medical and corrective care. This problem is relevant not only as a medical one, but it also has a social character.

The purpose of the work is to synthesize a mathematical model for detecting emotional disorders to reduce the likelihood of a cerebrovascular pathology occurrence and timely psychic correction.

The data of 89 psychological indices of 350 patients with chronic form of cerebrovascular pathology were analyzed.

At the same time, tests and questionnaires were divided into the following blocks: satisfaction, family crisis, psychic-emotional state, self-realization and personality block.

To determine the informative features, the logistic regression method was used. Seven significant signs are highlighted: credulity, diplomacy, anxiety, depression, psychosocial stress indicator and adaptation, allowing determining the presence or absence of emotional disorders.

The application of the developed mathematical model allows determining the probability of occurrence of a cerebrovascular pathology and helps to reduce the disability and, even, the mortality of patients.

### **References:**

1. Treatment of emotional and cognitive impairment in patients with dyscirculatory encephalopathy. [Electronic source]. - Mode of access to the page: <http://www.mif-ua.com/archive/article/5124>
2. Samsonova N.A., Moskvichyova M.G., Karpova M.I., Kleimenova N.V. Primary disability due to cerebrovascular pathology of the adult population. [Electronic source]. - Mode of access to the page: <http://science-education.ru/en/article/view?id=9151>