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ASSESSMENT OF QUALITY OF LIFE AND COGNITIVE FUNCTIONS IN PATIENTS WITH STATUS EPILEPTICISM

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ABSTRACT

Epilepsy remains a significant issue not only in neurology but also in medicine as a whole. The prevalence of epilepsy continues to rise among children and adults worldwide. According to the International League Against Epilepsy (ILAE), epilepsy is a brain disorder characterized by a persistent predisposition to epileptic seizures, leading to neurobiological, cognitive, psychological, and social consequences. This study aims to assess the quality of life and cognitive functions in patients with status epilepticus. A prospective, comparative, and controlled study was conducted at Andijan State Medical Institute. The study included 77 patients, divided into three groups: the main group (33 patients with status epilepticus), a comparison group (20 patients with epilepsy), and a control group (24 patients without epilepsy). The cognitive function assessment was performed using the Montreal Cognitive Assessment (MoCA) scale and a five-point rating system. The results showed that patients with status epilepticus had a higher prevalence of cognitive impairment, including mild dementia. Quality of life was also lower in these patients compared to the control and comparison groups. The findings emphasize the importance of comprehensive cognitive and quality-of-life assessments in managing epilepsy patients.

Key words: Epilepsy, status epilepticus, cognitive functions, quality of life, Montreal Cognitive Assessment (MoCA), neurological disorders, cognitive impairment, neuropsychology.

INTRODUCTION

Epilepsy remains one of the most pressing problems not only in neurology, but also in medicine in general. The incidence and prevalence of epilepsy is steadily increasing among children and adults worldwide [1]. According to the definition adopted by the World League Against Epilepsy (ILAE) in 2005, epilepsy is a brain disorder characterized by a permanent predisposition to epileptic seizures, and also has neurobiological, cognitive, psychological and social consequences. [2] This definition emphasizes that epilepsy is not just a series of

seizures, but also a condition that can affect various aspects of the patient's life, requiring a comprehensive approach to treatment and support [1,6,7]. According to the latest data from the World Health Organization (WHO, 2019), there are currently more than 70 million people with epilepsy in the world. According to research by Scheffer I. E., Berkovic S. , and Capovilla G (2017), epidemiological data highlight that epilepsy is a disease with a high prevalence and a significant social and economic burden. These studies have highlighted the importance of the problem, highlighting not only the scale of the prevalence of epilepsy, but also its impact on the quality of life of patients, as well as the economic costs associated with treatment and support[3,5]. Epilepsy has a broad social significance as it can affect various aspects of a person's life, including work, education and daily activities. [8, 9] The economic burden of the disease includes the costs of medical care, medications, as well as loss of productivity and the potential for long-term disability.

Objective: To study quality of life and cognitive function in patients with status epilepticus

Materials and methods. The work was carried out at the Department of Neurology of the Andijan State Medical Institute. The study was conducted on the basis of the clinic of the Andijan State Medical Institute and the Russian Scientific Center for Epidemiological, Pathological and Affective Problems in the Department of Neurology and Neuroreanimation. A standard neurological examination was conducted. The study design is comparative, controlled, prospective . Of the total number of 77 patients, the main group consisted of 33 patients with epileptic status, the comparative group included 20 patients diagnosed with epilepsy, the control group in the amount of 24 patients without epilepsy. The following screening tools were used to conduct functional diagnostics, study cognitive functions in patients with epileptic status; the Montreal Cognitive Assessment Scale (MoCA) and a five-point system.

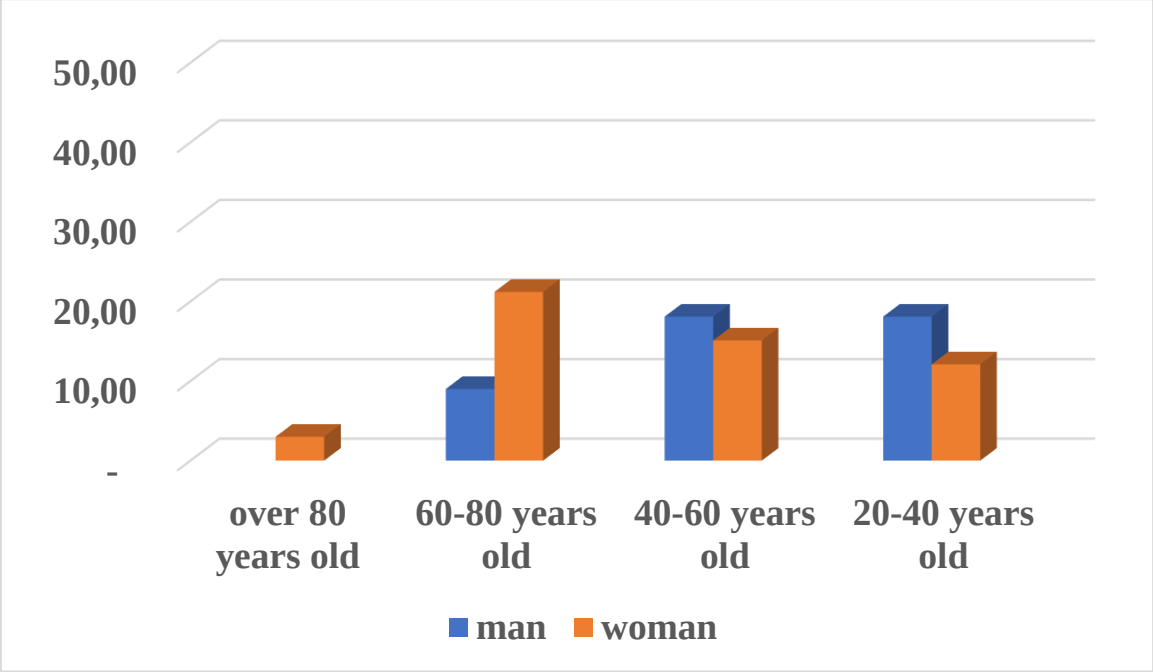
Results and discussions. Screening tools of scales - MoCA is designed for rapid analysis of cognitive impairments, which provides rapid screening of soft cognitive impairments, such as attention and concentration, executive functions, memory, speech, optical-spatial activity, conceptual thinking, reporting, orientation. The scale is widely used in clinical practice to assess the state of cognitive functions in patients with epilepsy. Evaluation of the patient's cognitive functions using MoCA takes approximately 10 minutes and the calculation is based on a score of 26 to 30 in healthy people.

At the time of the research work, the patients were aged from 20 to 81 years. In terms of age category, by gender in the main group, women accounted for 17

(51.5%), and men - 16 (48.5%), in the comparison group men - 12 (60%) and women - 8 (40%). By age category among women in the main group was the age - over 80 years 1 patient (3%), female patients dominated, among the age group of 60-80 years - 7 (21.2%), and men accounted for - 3 (9%). Among the age group of 40-60 years, women accounted for - 5 (15.1%), and in the group of 20-40 years - 4 (12.1%). In the general group among men in the category of 20-60 years in groups there were 12 patients (36.2%) (diagram 1).

Diagram 1

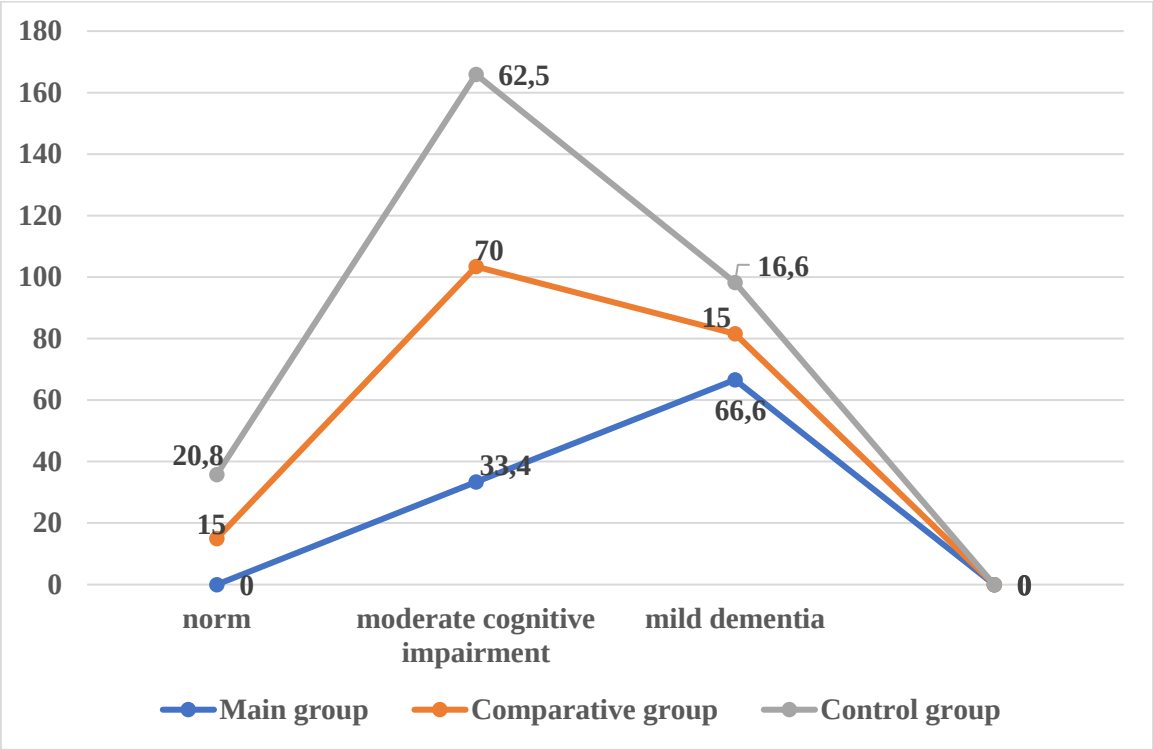
Distribution of patients by age category and gender



In case of epileptic status, the MoCa scale test results in 11 patients (33.4%) scored points within 22.1-27 points, which indicates moderate cognitive impairment, in the range of 22.1-16.2 points, 22 (66.6%) patients had mild dementia, less than 16.2 points were not observed. In the comparative group, 3 (15%) patients scored 26-30 points, which is the norm for the MoCa scale , 14 (70%) patients scored points within 22.1-27 points, which indicates moderate cognitive impairment, in the range of 22.1-16.2 points, 3 (15%) patients had mild dementia, less than 16.2 points were not observed. In the control group, 5 (20.8%) patients scored 26-30 points, 15 (62.5 %) patients scored within 22.1-27 points, which indicates moderate cognitive impairment, 4 (16.6%) patients scored within 22.1-16.2 points, mild dementia was observed, less than 16.2 points were not observed (diagram 2).

Diagram 2

MoCa test scores in patients



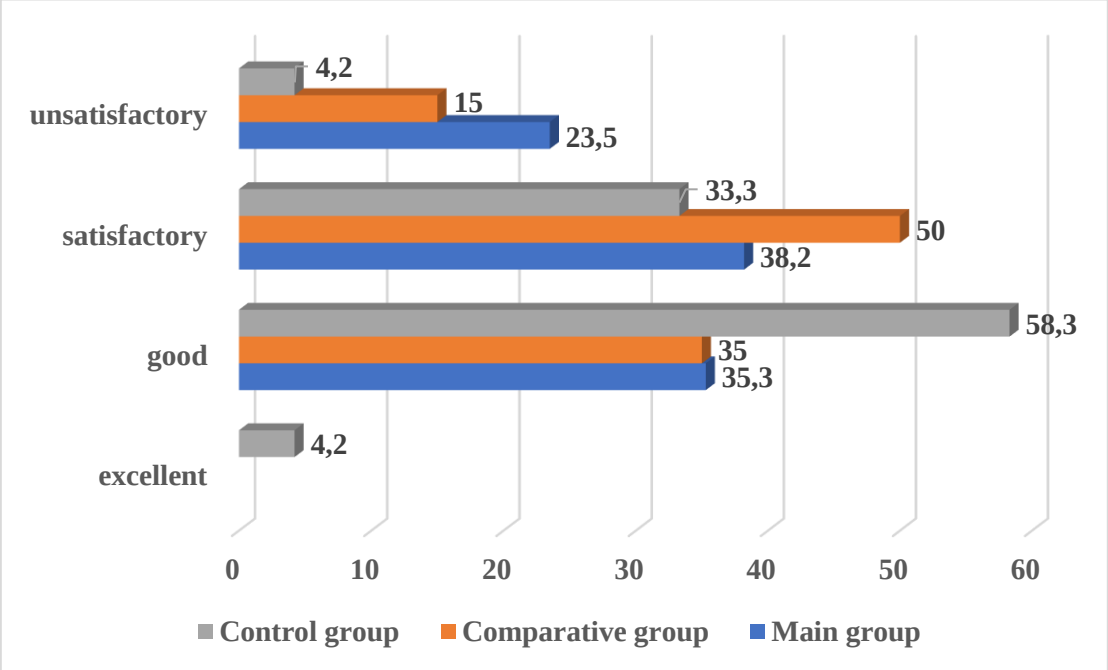
SCALE 5 is an integral indicator of quality of life, taking into account the physical, mental state and social adaptation of the patient and quality of life. Quality of life (QOL) is an indicator that plays a key role for the patient with epilepsy, which reflects the effectiveness of the therapy and is necessary for subsequent observation of the patient.

To determine the quality of life, we used a 5-point scale for patients in our work. The results of the studies showed that in the main group, 4 points (good) were among 12 (35.3%) patients, 3 points (satisfactory) were received by 13 (38.2%), 2- unsatisfactory was observed in 8 (23.5%).

In the comparative group, 4 points (good) were obtained by 7 (35%) patients, 3 points (satisfactory) were obtained by 10 (50%), 2 points (unsatisfactory) were observed in 3 (15%), 5 points (excellent) were not observed in the main and comparative groups. In patients of the control group, 5 points (excellent) were obtained by 1 (4.2%) patient, 4 points (good) were obtained by 14 (58.3%) patients, 3 points (satisfactory) were obtained by 8 (33.3%), 2 points (unsatisfactory) were observed in 1 (4.2%) patient, which is shown in diagram 3.

Diagram 3

Test scores on a five-point scale in patients



The indicators on the 5-point scale had their own characteristics among patients in the main group with epileptic status, where the quality of life assessed as “unsatisfactory” was higher in 23.5% than in the group of patients with epilepsy (15%) and without epilepsy (4.2%).

Conclusions. Thus, the process of diagnosing neurocognitive disorders in patients with epilepsy and epileptic status allows for an effective and comprehensive assessment of cognitive functions using the MoCA Scale. Using scale 5 in diagnosing quality of life in patients with epilepsy is an effective tool due to its simplicity and accessibility.

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