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HORMONAL CHANGES IN YOUNG MEN SUFFERING FROM EPILEPSY

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Introduction. Epilepsy is a disease of the brain defined by two unprovoked (or reflex) seizures occurring >24 h apart. This disease has a significant negative impact on all areas of the patient's functioning, reducing the quality of life. Long-term epilepsy is accompanied by the development of hormonal and metabolic changes that lead to comorbid pathology. Comorbidity of epilepsy and neuroendocrine disorders is up to 2/3 of all cases. The combination of epilepsy and neuroendocrine disorders may be due to the consequences of organic brain damage, such as deep frontal and temporal lobes or reticular formation of the trunk involved in neuroendocrine regulation.

In some cases, hormonal imbalance caused by neuroendocrine disorders serves as an epilepsy-inducing factor due to the epileptogenic effect of androgens, insulin and a number of other hormones. On the other hand, generalized seizures lead to increased secretion of prolactin by the adenohypophysis, which may cause the development of neuroendocrine disorders in patients with epilepsy.

The **purpose of this research** is to study the features of hormonal changes in men 18-44 years with epilepsy.

Materials and methods. We were examined 90 participants in this study. We were used clinical anamnestic, neurological, biochemical methods (determination of hormones in blood serum). EEG and EEG video monitoring were used as screening methods.

Results. When examining 90 people after losing consciousness when determining the concentration of prolactin in the blood serum, it was found that only 40 patients (44%) have epileptic seizures. The remaining men (n=50; 56%) had non-epileptic paroxysmal conditions: conversion, withdrawal paroxysms, syncope, panic attacks, sleep disturbances. The 16 men (40%) had low testosterone levels after a seizure. In 14 patients (35%), there was a violation of the release of follicle-stimulating and luteinizing hormones, which developed following the dysfunction of hypothalamic cells producing gonadotropin-releasing hormone. 10 men (25%) showed a decrease in testosterone levels while taking an antiepileptic drug, which can be manifested as a decrease in overall activity, mood, decreased libido, changes in bone density and other manifestations.

Conclisions. Symptoms of epilepsy in adult men are diverse. As the disease itself affects the general hormonal background of a man, so treatment with antiepileptic drugs affects hormonal changes in the body of a man.

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PAIN MANAGEMENT AFTER TKA WITH RADIOFREQUENCY ABLATION OF THE KNEE REGION NERVES

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Objectives. To decrease the pain syndrome intensity in patients after total knee arthroplasty in the postoperative period with continuous radiofrequency neuroablation (RFNA).

Materials and methods. This open prospective randomized study includes treatment results analysis of 93 patients with knee joint osteoarthritis who had TKA. Patients were divided into groups: the study group (n=44) and the comparison group (n=49). Patients of the study group underwent TKA and in the preoperative period them was performed RFNA of the genicular (superior medial and lateral, inferior medial) and cutaneous (infrapatellar branch of the saphenous nerve, branches of the femoral nerve) nerves of knee region under ultrasound guidance. The control group patients had only TKA. Pain intensity and functional status of patients was scored with VAS, WOMAC, KOOS questionnaires before treatment, 1.5, 3 and 6 months after surgery. The quality of life scored according to the SF-36 questionnaire. Numerical data were compared using Mann-Whitney U test in «Statistica» v.13.

Results. VAS results analysis showed pain reduction in both groups in 6 months after TKA in the study group - 2.0 (2.0; 2.0) points, and in the comparison group - 3.0 (2.0; 3.0) points ($p<0.05$). Analysis of the WOMAC results showed more pronounced improvement in treatment outcomes among patients who had TKA in combination with RFNA - 32 (28; 34) points after 6 months. In the comparison group, there was also an improvement in functional status at examination in 1.5 months after surgery, but with less effective reduction of pain and physical recovery, which was reflected in the examination in 6 months – 33 (28.5; 37) points. KOOS showed positive postoperative results in both groups of patients: 41.88 (37.2; 44.79) points in the comparison group and 47.67 (40.63; 50.51) points in the study group during a follow-up examination in 6 months after TKA ($p<0.05$). SF-36 analysis in 6 months after surgical treatment showed nearly identical restore of the psychological component of health in both groups of patients - 56.63 (55.83; 59.03) points in the comparison group and 58.96 (54.24, 60.35) points in the control group ($p<0.05$). Better restoration of the physical component of health was admitted in the control group.

Conclusions. RFNA of the genicular nerves and additional ablation of skin nerves is safe and effective method for the postoperative pain syndrome prevention after TKA and allows patients more quickly restore functional activity and improve quality of life.

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RIGHT VENTRICULAR REMODELING AS AN UNFAVORABLE FEATURE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE COMBINED WITH HYPERTENSION

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Background. Hypertension (HT) is the most common comorbidity in patients with chronic obstructive pulmonary disease (COPD) (Le T.T., 2021). Adverse right ventricular (RV) remodeling leads to heart failure that represents an important determinant of outcome in patients with HT combined with COPD. Chronic hypoxia and systemic inflammation contribute to tissue destruction and disruption normal repair and defense mechanisms, resulting in pulmonary vascular remodeling and pulmonary hypertension.

Purpose. to evaluate RV structural and functional changes associated with deterioration of patients with COPD combined with HT.

Methods. We investigated 69 patients with HT stage II in combination with COPD (GOLD 2, group B) in remission (57 males and 12 females ; mean age 55,80±5,51 years) who underwent 6-min walk test (6MWT), pulse oximetry, spirometry, chest X-ray, electrocardiography and