

# STRUCTURE OF CNS INFECTIONS AROUND PATIENTS OF INFECTIOUS DISEASES HOSPITAL

Fathima Hasnaa M. A., Bandara Marini Angela B. J. M.,  
Eesa Hettiaratchi H. D., Mohamed Amry M. A.

Grodno state medical university

Научный руководитель: Потапчик А. Л.

**Introduction.** Neuroinfections are a significant health issue worldwide due to the complexity of diagnosis, the severity of the condition and the possible complications. Statistics show that infectious lesions of the central nervous system (CNS) contribute to 40% of human neurological diseases[1,2]. Rapid identification of the etiological agent of neuroinfections enables targeted etiotropic therapy, effective sanitary and epidemiological control, and preventive measures. Despite modern laboratory diagnostic methods, a few cases of neuroinfections remain unverified [3,4].

**Aim of the study.** To determine the frequency and structure of neuroinfections among hospitalized patients treated at the State Clinical Hospital between 2017-2019.

**Materials and methods.** Retrospective analysis of 290 medical records of patients discharged from the Grodno Regional Infectious Diseases Clinical Hospital (2017-2019). Statistical analysis was conducted using Google Colaboratory, "Statistics" package version 10, and the Excel program.

**Results and discussion.** The share of neuroinfections of various etiology in the structure of patients admitted to the infectious diseases hospital from 2017-2019 was 2.1% . From the 290 cases of neuroinfections presented, 28 cases (9.7% of the total number of neuroinfections diagnosed in the given period) were of purulent meningitis and meningoencephalitis. 262 cases (90.3%) were of aseptic (serous) neuroinfections. Among them, tick-borne encephalitis was diagnosed in 94 patients – 35.9% . Tick-borne lesions of the CNS of mixed etiology (tick-borne encephalitis + borreliosis) were seen in 6 patients – 2.29% . Neuroinfections of enteroviral etiology were noted in 40 patients -15.27% of all infectious CNS lesions.

During this period, 21 cases( 8.02% of all aseptic CNS lesions) with Herpes virus were noted. Of these, 14 cases were due to VZV, 5 due to HSV 1 and 2 , 1 due to EBV and 1 case of CMV meningoencephalitis. In 96 cases (36.6%) of serous neuroinfections, the pathogen's etiology was not verified. Aseptic meningitis and meningoencephalitis predominate in the structure of neuroinfections among hospitalized patients, resulting in 51.5% and 43.1% respectively, of all serous lesions of the CNS. Encephalitis is noted in 3.8% of cases, cerebellitis in 0.8%, and meningoradiculoneuritis and meningoencephalopolyradiculoneuritis in 1 case each (0.8%).

**Conclusion.** The predominant proportion of neuroinfections was represented by aseptic meningitis and meningoencephalitis (262 patients) – 90.3% of the total number of infectious lesions of the CNS. The most common form of aseptic infections of the

CNS was meningitis, with 135 cases (51.5% of all serous lesions of the CNS), while meningoencephalitis was seen in 113 cases (43.1%). Encephalitis was noted in 10 cases (3.8%), cerebellitis in 2 cases (0.8%), and meningoradiculoneuritis and meningoencephalopolyradiculoneuritis in 1 case each (0.8%).

The predominant role among aseptic neuroinfections was the Tick-borne encephalitis virus, endemic to the Grodno region, and neuroinfections of enteroviral etiology. 36.6% of cases were unverified CNS lesions underscoring the necessity to develop an optimal algorithm for the laboratory examination of patients with CNS infections.

#### ЛІТЕРАТУРА

1. Fraley CE . Encephalitis in Previously Healthy Children. /Fraley CE, Pettersson DR, Nolt D. // *Pediatr Rev.* 2021 Feb;42(2):68-77. doi: 10.1542/pir.2018-0175. PMID: 33526572
2. McGill F, Griffiths MJ, Solomon T. Viral meningitis: current issues in diagnosis and treatment. *Curr Opin Infect Dis.* 2017;30:248- 56.
3. Heckenberg SG, Brouwer MC, van de Beek D. Bacterial meningitis. *Handb Clin Neurol.* 2014;121:1361-75.
4. Mount HR, Boyle SD. Aseptic and bacterial meningitis: evaluation, treatment, and prevention. *Am Fam Physician.* 2017;96:314-22.

## CLINICAL AND ANAMNESTIC FEATURES OF CHRONIC HEART FAILURE DEPENDING ON THE LEFT VENTRICULAR EJECTION FRACTION

**M. G. W. M. Varsha Priyadarshani,  
Poorna Gayan Wattaladeniya**

Grodno state medical university

Научный руководитель: PhD in M Kalatsei L. V.

**Introduction.** Left ventricular ejection fraction (LVEF) is the measure of volume ejected in systole phase (stroke volume), which an important clinical marker is used for diagnosis, classification and management of heart failure (HF) over decades [1]. HF is classified into HF with reduced ejection fraction (HFrEF) and HF with preserved ejection fraction (HFpEF). LVEF parameter has a high prognostic value in predicting complications in patients after revascularization, myocardial infarction (MI), and with congestive heart failure. Patients with reduced LVEF are often associated with greater adverse events including higher rates of CVDs, sudden cardiac death, while the patients with preserved LVEF are associated with abnormal diastolic function due to increased LV myocardial stiffness [2].