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Analysis of Neurological symptoms in patients with Covid-19.

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Namangan Branch of the Republican Scientific Center for Urgent Ambulance Center or the development of professional qualifications of medical personal

Coronavirus are a family of RNA viruses that can infect humans and some animals. In humans, the Coronavirus can cause variety of illnesses, from weak forms of acute respiratory infections severe acute respiratory syndrome.

The new coronavirus 2019nCov (provisional name given by the World Health Organization on January 12,2020) is a single-Stranded RNA virus belonging to the Coronaviridae family of the Beta-Cov series and, like other members of this family , is included in the second pathogenetic group (The virus SARS-Cov MERS-Cov). Brain dysfunction is particularly manifested by symptoms such as loss of smell. The mechanism of the effect of Covid-19 on nerve cells has not been fully studied, but scientists do not doubt that there is a connection here: temporary burning of taste or smell are recognized as specific symptoms of Covid-19. In addition , the virus can enter the brain directly from the nasopharynx, and this, in turn, can cause a number of complications that disrupts the normal functioning of almost all organs.

The virus causes necrotizing encephalopathy in infected patients, which is considered a critical damage to the main organ of the central nervous system. All neurological symptoms usually appear in the acute period of the disease. In the most severe patients. It is still unknown whether the SARS-Cov-2 coronavirus can directly infect the brain and central nervous system. Because the cells of the immune system infected with the coronavirus begin to actively release Cytokines into the blood, it can damage the brain tissue. According to the literature, 37% of 214 people had neurological symptoms, including almost 50 % with severe COVID-19 symptoms.

The purpose of the study: comparative analysis of neurological symptoms in patients with COVID-19, their severity, and before the period of the COVID pandemic. Materials and methods 1480 patients aged 29-67 years(average age 52,3+9,7 years) were analyzed at the Namangan Branch of the Republic Scientific Centre for Emergency Medical Care, of which 835 (56,4%) were women (average age 57,5+8,4 years) 45 (43,6%) men (mean age 54,9+6,1 years) including 1436 (97%) patients with COVID-19 with unrelated pneumonia and 44 (2,7%) were treated for associated pneumonia. In parallel with the general somatic condition, we focused on the manifestation of neurological symptoms of COVID-19.

Results of the study: we observed seizures, incoherence of speech, confusion and freezing of the feet in some hospitalized patients with a severe general background, and in a few patients, exacerbation of Parkinson's disease.

Apparently, COVID-19 causes a so-called "cytokine storm" Excessive proliferation of immune cells and chemical compounds that activate them cytokines.

Their high concentration leads to contamination of the blood brain barrier, which protect the brain for several days. We diagnosed acute polyradicu loneuropathy with Gnullain Barrw ayndrome in 23 (1,55%) of all patient we analyzed of these, 11 patients (0,74%) died. Cavernous sinus thrombosis was detected in 37 patients (2.5%), of which 7 patients (18,91%) were transferred to other specialized departments for surgical treatment and 12 patients (32,43%) died. We observed both ischemic and hemorrhagic strokes in patients with COVID-19. We also found ischemic stroke in 489 patient (33,04%) of these, 68 patients (13,9%) died Hemorrhagic stroke was defected in 176 (11,89%) patients we analyzed.

So, during the same period in the past, before the COVID-19 pandemic, acute poluradiculoneuropathy accured in 0,4-0,5 % of Gullian Barre syndrome patients, cavernous sinus thromboses in 0,6-0,7 % of patients, ischemic stroke in 4,1-4, Hemorrhagic stroke occured in 10,3-10,5% of patients ad the mortality rate was 2,5-2,7%.

Conclusion: The COVID-19 virus causes an increase in the number of patients with neurological symptoms, and all detected pathologies have led to an increase in mortality compared to the pre-pandemic period. This situation means that neurologists need to pay more attention to patients with COVID-19.

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