

FREQUENCY AND DIAGNOSTIC FEATURES OF CRANIAL POLYNEUROPATHIES ASSOCIATED WITH COVID-19

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Abstract

Currently, 45% of patients who have recovered from COVID-19 face neurological disorders. These complications range from neurasthenia to severe conditions such as brain ischemia, encephalomyelitis, encephalopathy, and polyneuropathies (damage to the peripheral nervous system). Among these, cranial nerve lesions occupy a significant place and, according to international publications, are observed in patients at varying times after recovering from COVID-19. However, existing data remain insufficient for practical, theoretical, and statistical analysis, necessitating deeper study and increased attention to this issue.

Introduction

Objective of the Study

To investigate cases of cranial nerve damage in patients who recovered from COVID-19 and analyze their diagnostic features.

Materials and Methods

The study was conducted at the multidisciplinary clinic of the Tashkent Medical Academy, specifically in the otorhinolaryngology and neurology departments. A total of 30 patients aged 18 to 60 years with cranial polyneuropathy, which developed after recovering from COVID-19, were included in the study. Among them, 22 (73%) were women, and 8 (27%) were men. The patients underwent immunological blood tests (D-dimer) and biochemical studies (fibrinogen), as well as clinical and neurological examinations to identify disease characteristics and diagnostic features.

Research Results

The following findings were observed among the patients:

D-dimer Analysis

In 8 patients (26.7%), the D-dimer level was ≤ 250 ng/mL;

In 20 patients (66.7%), the D-dimer level ranged from $250 < \text{D-dimer} < 500$ ng/mL;

In 2 patients (6.67%), the D-dimer level exceeded 500 ng/mL.

Fibrinogen Analysis

In 17 patients (56.6%), fibrinogen levels ranged from $400 < \text{fibrinogen} < 600$ mg/mL;

In 1 patient (3.33%), fibrinogen levels ranged from $600 < \text{fibrinogen} < 800$ mg/mL;

In 2 patients (6.67%), fibrinogen levels exceeded 800 mg/mL.



Conclusions

In patients who recovered from COVID-19, the identified cranial polyneuropathies were accompanied by elevated levels of D-dimer and fibrinogen. Moreover, the increase in these parameters correlated with the clinical picture of the disease and delayed recovery of focal neurological symptoms.

