EPIDEMIOLOGY OF HEART FAILURE IN THE BACKGROUND OF COVID-19 INFECTION

Ganiev Sardor Saminjonovich
DOI:https://doi.org/10.5281/zenodo.22983110

Login

COVID-19 pandemic not only breath to take to the system , but heart and blood vein also noticeable in the system impact global medical and social to the problem The SARS-CoV-2 virus has become angiotensin-converting enzyme 2 (ACE2) receptor through not only lungs to the epithelium , perhaps cardiomyocytes , endothelium cells and also binds to pericytes and directly harmful impact to show possible . As a result myocardium injury , myocarditis , arrhythmias , thrombotic complications and heart shortage again development or there is of the situation decompensation is observed . The world along take visited many research this shows that in advance heart and blood vein diseases , including chronic heart to the shortage played COVID-19 patients are significantly at the level heavy it will be over and death indicator general to the population relatively much high will be .

The problem relevance is that the pandemic during heart shortage was of patients many part own on time outpatient out of control deviated the rest , this and decompensation of the circumstances to increase and to the hospital of appeals to be late take came . That's why with COVID-19 related heart shortage epidemiological features deep learning , risk groups determination and monitoring systems improvement modern cardiology and infectious disease current from the duties one is considered .

Research purpose

With COVID-19 sick in patients heart shortage spread level , development danger factors , clinical-laboratory delay features and this indicators disease weight level and to live end with dependence epidemiological in terms of analysis to do

Material and methods

Research retrospective-analytical and systematic in a systematic review method take went . 2020–2024 during publication done international (PubMed, Scopus, Web of Science) and local information in the bases relevant scientific literature , as well as COVID-19 diagnosis with inpatient treated and one of time in itself heart shortage signs record done of patients medical documents analysis The research was conducted various young in the group (45 years and older) high) medium and heavy with COVID-19 at the level hospitalization made patients was introduced . Patients demographic indicators (age , gender), companionship diseases (arterial hypertension , diabetes) diabetes , ischemic heart disease , kidney chronic disease), laboratory indicators (NT- proBNP or BNP, high sensitive troponin, D-dimer, C-reactive protein , ferritin) and instrumental examination results (ECG, echocardiography through release faction and diastolic function indicators) statistical to groups become analysis Statistical processing to give for descriptive statistics methods , intergroup comparison for Chi- square and Student criteria used , p value <0.05 statistic considered important was done .

Results

Transferred analysis to the results according to , on COVID-19 middle and heavy at the level hospitalization made of patients approximately 15–20 percent heart shortage signs or there is heart shortage decompensation record Especially over 65 years old increased , history of arterial hypertension ,

© Ushbu material Creative Commons Attribution 4.0 International (CC BY 4.0) litsenziyasi asosida tarqatiladi.

diabetes diabetes and ischemic heart disease was patients in the group this the indicator is up to 28–32 percent enough , this and young and companionship diseases important danger factor that confirms .

NT- proBNP level out of the norm noticeable increase with severe COVID-19 sick of patients most in part observed is , this myocardium stress and hemodynamic loading indirectly indicator as Rated . High sensitive troponin level increase of patients approximately three one in part it is determined , this and myocardium microtrauma wider from the spread evidence gives . Attention worthy aspect is that it is stored release fractional heart failure (HFpEF) cases decreased release fractional relative to the form (HFrEF) relatively more record done , this of the virus diastolic to the function and myocardium elasticity negative the impact shows .

Death indicator analysis this showed that the heart shortage in COVID-19 patients who this indicator heart shortage not been to patients 2–3 times more high was . Also , resuscitation to the department fall probability and artificial breath to the device connection This is also necessary in the group much high happened was determined .

Discussion

Received results COVID-19 and heart shortage between two one-sided pathophysiological dependency obvious confirms . One from the side , available chronic heart shortage of COVID-19 infection heavy to the end tendency creates , because such in patients heart-lung backup opportunities limited will be . Second from the side of the virus himself/herself straight away myocardium injury , hypoxia , cytokine storm , microthromboses and endothelial dysfunction mechanisms through new heart shortage circumstances brought releases or there is the situation aggravates . Such complicated two one-sided impact mechanism from clinicians integrated approach demand does .

Epidemiological information deep analysis to do high danger in the group patients early to determine , to them relatively a specific monitoring strategy current to grow and treatment algorithms own on time optimization necessity In particular , natriuretic peptides and troponin levels in dynamics control to do , echocardiographic screening expansion high danger in the group in patients decompensation early in stages determination opportunity gives .

Conclusion

COVID-19 infection heart shortage development or his/her to pass aggravating important independent factor Epidemiological monitoring system improvement , risk groups early stratification to do and complex cardiological-infectious control system current to grow in the future treatment and prevention strategies effective optimization for scientific and practical basis become service does .

Used literature

1. International cardiology COVID -19 and heart and blood vein system complications related consensus documents and clinical recommendations (2021–2024).
2. Europe heart Journal (European Heart Journal) and American College of Cardiology college COVID - 19 and heart shortage meta- analyses on .
3. World health storage COVID-19 complications of the organization according to epidemiological reports .
4. Uzbekistan Republic Health storage of the ministry pandemic during the period heart and blood vein diseases statistics according to information .

© Ushbu material Creative Commons Attribution 4.0 International (CC BY 4.0) litsenziyasi asosida tarqatiladi.