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THE FEATURES OF COVID-19 IN HIV POSITIVE PATIENTS

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Relevance. COVID-19 has had catastrophic-effects not only the demographic of the world by causing >6 million deaths worldwide, but has also crippled people with added co-morbidities in varying degrees. The susceptibility of HIV infected patients with SARS-CoV-2 remains unknown. This situation is unique due to the altered immune system of patients due to HIV infection & the use of antiretroviral therapy by them, some of which have been used experimentally to treat Covid-19 infections. HIV causes the depression of CD4 cells in those infected, thus decreasing the ability of the patient to defend against parasitic, viral, fungal, bacterial infections such as Covid-19.

Aim: to assess the clinical features of Covid-19 in HIV positive patients

Materials and methods. Patient cards of HIV positive patients coinfecting with Coronavirus from 10th City Clinical hospital and SCOPUS, PubMed, Cochrane database for metanalysis.

Results and their discussion. The patients presented at the hospital with classical symptoms of Covid-19 i.e., cough, shortness of breath, fever, chills, sore throat. The mean age of patients was 45.4 years. All the patients were undergoing treatment for HIV infection and tested positive for Covid-19. On analyzing the General blood analysis, we concluded that the average levels of ESR=70 mm/h, CRP=132.64 mg/l, Procalcitonin= 3.79 mg/ml, Fibrinogen= 5.99g/l, Total cholesterol= 3.5mmol/l, AST= 52.44E/l, ALT= 34.76E/l, WBC's = $8.64 \cdot 10^9/l$, Lymphocytes= $1.152 \cdot 10^9/l$, Creatine phosphokinase= 28.75E/l, GGT= 204.8E/l, Beckman D Dimer = 0.5mcg/ml, MCV= 93.93 f/l, MCH= 30.73pg, MCHC= 210.88 g/l, Thrombocytes= $217.94 \cdot 10^9/l$ in these patients. Their diagnosis included pyothorax, pleural empyema with bronchial fistula, chronic bronchitis with broncho-obstructive syndrome, community acquired bilateral poly-segmental pneumonia, thrombocytopenia & viral hepatitis.

Conclusion: on comparing our data with that of the world, we identified the median age of patients as 56 years with 50% of male patients which is very close to our analysis. The general blood analysis showed similarities between that of the Belarussian population & those worldwide. HIV-positive persons had a significantly higher risk of SARS-CoV-2 infection (RR=1.24) & mortality from Covid-19 (RR=1.78) than compared to HIV-negative people. The prevalence of HIV among COVID-19 patients was 26.9 % which was significantly higher in conducted studies of Africa than anywhere else (118.5%). Some studies also showed the prevalence of high comorbidity of hypertension & diabetes mellitus in HIV-positive patients coinfecting with Covid-19. We hence conclude that HIV-positive individuals undergoing antiretroviral therapy are at a higher risk of contracting Covid-19 & their associated comorbidities.