

COVID-19

P0644

CLINICAL AND LABORATORY FEATURES OF THE COURSE OF PULMONARY EMBOLISM IN PATIENTS WITH COVID-19 AND ABDOMINAL OBESITY

A. Pleshko¹, E. Petrova², M. Kaliadka³, N. Mitkovskaya²

¹Belarusian State Medical University, Minsk, Belarus

²Belarusian State Medical University, Minsk, Belarus; Republican Scientific and Practical Centre of Cardiology, Minsk, Belarus

³Republican Scientific and Practical Centre of Cardiology, Minsk, Belarus

BACKGROUND-AIM

High risk of pulmonary embolism (PE), severe COVID-19 in people with abdominal obesity (AO) and coronavirus infection (CVI) is actively discussed. The aim of our study is to determine the clinical and laboratory features of the PE in patients with abdominal obesity infected with SARS-CoV-2.

METHODS

The data of 11,056 patients with COVID-19 who were treated at the 4th State Clinical Hospital in Minsk at the period from 01.04.2020 to 31.05.2021 was analyzed.

RESULTS

The part of patients with PE is 3.68% (n=407). Other part of persons with AO (body mass index greater than or equal to 30 kg/m², waist circumference more than 94 cm in men and 80 cm in women) - 11.38% (n=1259). The part of patients with PE among persons with CVI and AO (n=1259) is 7.15% (n=90); among persons with CVI without AO (n=9797) - 3.24% (n=317). Sample of 33 medical records of patients with COVID-19 and PE was formed. According to the AO level, two groups were formed: 1st - 25 patients with CVI and PE without AO, 2nd - 8 patients with CVI and PE with AO. Among patients with COVID-19 and PE with AO, in comparison with patients without AO, a higher proportion of persons with severe CVI was revealed: 62.5 (n = 5) % VS 20.0% (n = 5) ($\chi^2 = 5.18$; $p < 0.05$), a higher level of fibrinogen and with C-reactive protein (CRP) : 6.97 (6.11 - 8.03) g/l VS 4.71 (4.02 - 5.59) g/l (U = 12.0, $p < 0.01$) and 116.64 (80.38-134.08) mg/l VS 30.21 (15.11-57.21) mg/l (U = 36.04; $p < 0.01$), respectively, higher values of CRP at the occurrence of PE 71.01 (50.59-105.06) mg/l VS 34.01 (18.85-60.81) mg/l (U = 49.00; $p < 0.05$). In patients with CVI and PE, a direct moderate association was established between the presence of AO and the severe course of COVID-19 ($r = 0.41$; $p < 0.05$), AO and an increase in fibrinogen levels ($r = 0.58$; $p < 0.05$); a direct strong association between the presence of AO and an increase in serum CRP blood ($r = 0.76$; $p < 0.01$), a direct moderate association between AO and the level of CRP determined during the development of PE ($r = 0.51$; $p < 0.01$).

CONCLUSIONS

In patients with KIWI and AO, the proportion of patients with PE is higher, there is a more severe COVID-19 disease, which occurs against the background of increased markers of inflammation.



IFCC-EFLM WorldLab • EuroMedLab Roma 2023
Rome, Italy

25th International Congress of Clinical Chemistry and Laboratory Medicine
25th European Congress of Clinical Chemistry and Laboratory Medicine
55th Congress of the Italian Society of Clinical Biochemistry and Clinical
Molecular Biology

May 21-25, 2023, Rome, Italy

La Nuvola, Viale Asia 40 /44 - 00144 Roma RM