The aim of this study was to analyze the homozygous-recessive characteristics (HRCs) in the COVID-19 patients, regarding gender, forms of the disease (milder and severe symptoms), risk factors (RF) such as hypertension, diabetes mellitus, hyperlipidemia, and smoking habits, and distributions of the ABO blood groups compared to healthy controls.

### MATERIAL AND METHODS
The study was performed using an HRC test when we analyzed 20 HRCs in a sample of 200 individuals: 100 patients of both genders average age 45.29±14.99, and 100 controls of both genders average age 46.29±15.38.

### RESULTS
Our results showed that the average value of HRC in patients was significantly higher compared to controls (Xhrc/20P=7.09±1.51, Xhrc/20C=4.54±1.83; p<0.001). As for the form of the disease, average value of HRC in patients with severe symptoms was significantly higher (Fig. 1). In patients, four HRC were more common, and that are continuous frontal hairline, digital index, top joint of the thumb >45°, and mid-phalangeal hair absence (Table 1). Our results indicated that the average value of HRC was significantly different in patients regarding the number and presence of RFs. Binary logistic regression analysis confirmed that patients with 5 or more HRC (cut-off 5) had a 2.5 times higher risk to get sick (OR=2.520; CI=1.95-3.27; p<0.0005) (Fig. 2).

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