**Supplementary data**

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**Figure 1A**. The levels of Nrf2, phosphorylated Nrf2(p-Nrf2)and its inhibitor Kelch-like ECH-associated protein 1 (Keap1) as well as heme oxygenase 1 (HO-1) in the granulocytes of patients divided into female and man with COVID-19, including those who recovered (nF=7 and nM=9) and those who deceased (nF= 8 and nM=8) as well as healthy subjects (nF=7 and nM=9). Data points represent the mean ± SD; b – significant differences in relation to healthy people (among women (hatched bars)/men (dotted bars), p < 0.05; c – significant differences in relation to recovered people with COVID-19 (female/man), p < 0.05; z – significant differences between females and males in group of healthy people, patients with COVID-19 recovered and patients with COVID-19 deceased, p < 0.05.

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**Figure 2A**. The activity of superoxide dismutase (cytosolic - Cu,Zn-SOD and mitochondrial - Mn-SOD) in granulocytes of patients divided into female and man with COVID-19, including those who recovered (nF=7 and nM=9) and those who deceased (nF= 8 and nM=8) as well as healthy subjects (nF=7 and nM=9). Data points represent the mean ± SD; b – significant differences in relation to healthy people (among women (hatched bars)/men (dotted bars), p < 0.05; c – significant differences in relation to recovered people with COVID-19 (female/man), p < 0.05; z – significant differences between females and males in group of healthy people, patients with COVID-19 recovered and patients with COVID-19 deceased, p < 0.05.

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**Figure 3A**. The level of proteins playing essential role in development of inflammation, such as two family members of nuclear factor kappa-light-chain-enhancer of activated B cells (NFκB p52 and NFκB p65) as well as tumor necrosis factor alpha (TNF-α), in the granulocytes of patients divided into female and man with COVID-19, including those who recovered (nF=7 and nM=9) and those who deceased (nF= 8 and nM=8) as well as healthy subjects (nF=7 and nM=9). Data points represent the mean ± SD; b – significant differences in relation to healthy people (among women (hatched bars)/men (dotted bars), p < 0.05; c – significant differences in relation to recovered people with COVID-19 (female/man), p < 0.05; z – significant differences between females and males in group of healthy people, patients with COVID-19 recovered and patients with COVID-19 deceased, p < 0.05.

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**Figure 4A**. The level of anti-inflammatory interleukin 10 (IL-10) and pro-inflammatory interleukin 2 (IL-2) and interleukin 6 (IL-6) in the granulocytes of patients divided into female and man with COVID-19, including those who recovered (nF=7 and nM=9) and those who deceased (nF= 8 and nM=8) as well as healthy subjects (nF=7 and nM=9). Data points represent the mean ± SD; b – significant differences in relation to healthy people (among women (hatched bars)/men (dotted bars), p < 0.05; c – significant differences in relation to recovered people with COVID-19 (female/man), p < 0.05; z – significant differences between females and males in group of healthy people, patients with COVID-19 recovered and patients with COVID-19 deceased, p < 0.05.

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**Figure 5A**. The level of pro-inflammatory eicosanoids (A): thromboxane B2 (TXB2) and prostaglandin E2 (PGE2) and anti-inflammatory eicosanoids (B): 15-deoxy-delta12,14-prostaglandin J2 (15d-PGJ2) and 5-hydroxyeicosatetraenoic acid (5-HETE) in the granulocytes of patients divided into female and man with COVID-19, including those who recovered (nF=7 and nM=9) and those who deceased (nF= 8 and nM=8) as well as healthy subjects (nF=7 and nM=9). Data points represent the mean ± SD; b – significant differences in relation to healthy people (among women (hatched bars)/men (dotted bars), p < 0.05; c – significant differences in relation to recovered people with COVID-19 (female/man), p < 0.05; z – significant differences between females and males in group of healthy people, patients with COVID-19 recovered and patients with COVID-19 deceased, p < 0.05.

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**Figure 6A**. The level of receptors involved in oxidative and inflammatory reactions of granulocytes from patients divided into female and man with COVID-19, including those who recovered (nF=7 and nM=9) and those who deceased (nF=8 and nM=8) as well as healthy subjects (nF=7 and nM=9). CB1 and CB2 - cannabinoid receptors 1 and 2; TRPV1 - the transient receptor potential cation channel subfamily V member 1; PPARγ - peroxisome proliferator-activated receptor gamma. Data points represent the mean ± SD; b – significant differences in relation to healthy people (among women (hatched bars)/men (dotted bars), p < 0.05; c – significant differences in relation to recovered people with COVID-19 (female/man), p < 0.05; z – significant differences between females and males in group of healthy people, patients with COVID-19 recovered and patients with COVID-19 deceased, p < 0.05.