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ANDROGENIC ALOPECIA RELATION TO COVID-19 PROGNOSIS: OBSERVATIONAL STUDY

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Individual susceptibility to developing acute respiratory distress syndrome is related to age and most frequent comorbidities. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) primarily infects the type II pneumocytes in humans, with the help of transmembrane serine protease type 2 (TMPRSS2). The only known transcriptional promoters of genes coding TMPRSS2 are androgenic. Theoretically, the elevated level of androgens or androgen receptors could lead to a higher expression of TMPRSS2 and a higher level of viremia as a consequence.

The aim of this research was to indirectly investigate whether the severity of SARS-CoV-2 infection depends on the expression of androgen receptors.

This observational study analysed male patients hospitalized for SARS-CoV-2 infection with respect to the length of hosipitalisation, the outcome of the disease, the type of necessary oxygen support and the presence of comorbidities and hairiness. In hairiness estimation, we used an adapted version of the Hamilton–Norwood scale and the presence of the Gabrin sign.

In total, 208 patients participated in the study. There were statistically significant differences comparing the average age of patients with the different types of alopecia when groups were divided according to the presence of the Gabrin sign (t = 4.958, p > 0.01). The outcomes and the type of needed minimal oxygen support, compared with the type of alopecia in the case of Gabrin + / − classification showed a statistically significant difference in the outcome of the disease (p = 0.027). There were no statistically significant differences in the distribution of comorbidities among alopecia groups, but hypertension was related to poor COVID-19 prognosis.

Our findings suggest that the Gabrin sign and hypertension are related to a poor COVID-19 prognosis.