

# Thiol levels in mild or moderate covid-19 patients: A comparison of variant and classic covid-19 cases

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## Abstract

Background: Various variants of the covid-19 have started to attract attention recently. The clinical course of these variants and possible predictive parameters are being investigated. This study aimed to examine the relationship between thiol levels, which are indicators of oxidative stress, and variant covid-19 types. Methods: In this cross-sectional study, patients with a diagnosis of classic covid-19 and patients with a diagnosis of variant covid-19 with mild and moderate symptoms followed in the clinical observatory of Ankara city hospital were included in the study group. The patients were divided into two groups according to the covid-19 type as variant and classic covid-19, and a healthy control group is added for comparison. A complete blood count and thiol analysis are performed from the venous blood samples. Obtained results were compared between groups, and the ROC analysis is performed. Results: Thiol levels were significantly lower in patients with a diagnosis of Covid-19 compared to the control group. In terms of WBC, lymphocyte, neutrophil, NLR, ferritin and thiol parameters, patients with variant covid-19 differed significantly from patients with a classic covid-19 diagnosis. Thiol levels' cut-off values to distinguish between variant covid-19 patients and control group from classical covid-19 patients were almost identical (423 and 422  $\mu\text{mol/L}$ , respectively). Conclusions: It seems possible to use thiol as a sensitive, specific and cost-effective marker to suspect variant covid-19 cases. Since this study is probably the first example in this subject, it would form a basis for further studies. Keywords: Covid-19, SARS-CoV-2, variant covid-19, thiol, oxidative stress.

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