

# Percentage of disease incidence and different experiences in the treatment of Covid-19 infection in the student population

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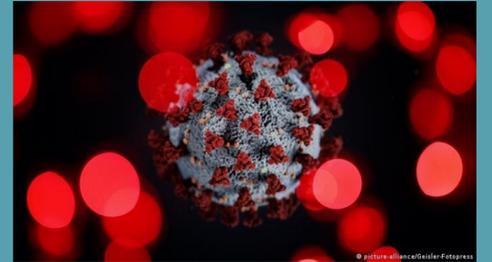


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## Introduction

Respiratory, and now we know that it is also a systemic disease that damages the blood vessels of internal organs, caused by the corona virus (COVID-19), has been identified as the cause of the pandemic that began in 2019. Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) is a member of the coronavirus family and is the cause of this serious disease (Adhikari et al., 2020). Based on the results of their study, Liu et al., 2011., concluded that angiotensin converting enzyme II (ACE2) is responsible as a receptor for the COVID-19 virus in humans (Liu et al., 2011). The main pharmacotherapeutic protocols focus on three approaches to treatment depending on the clinical picture that has developed: antiviral agents - to prevent virus replication; immunomodulatory drugs - to alleviate the overemphasized immune response of the infected organism, which is very common in severe forms of the disease; drugs that prevent hypercoagulation leading to thrombotic complications. The approach to treatment itself is different in home and hospital conditions, depending on the severity of the clinical picture. Antibiotics were an integral part of treatment in case of secondary bacterial infection due to a general decline in immunity. Supplementation with vitamin D and micronutrients has proven to be an important part of disease therapy and recovery.



**Aims of study**

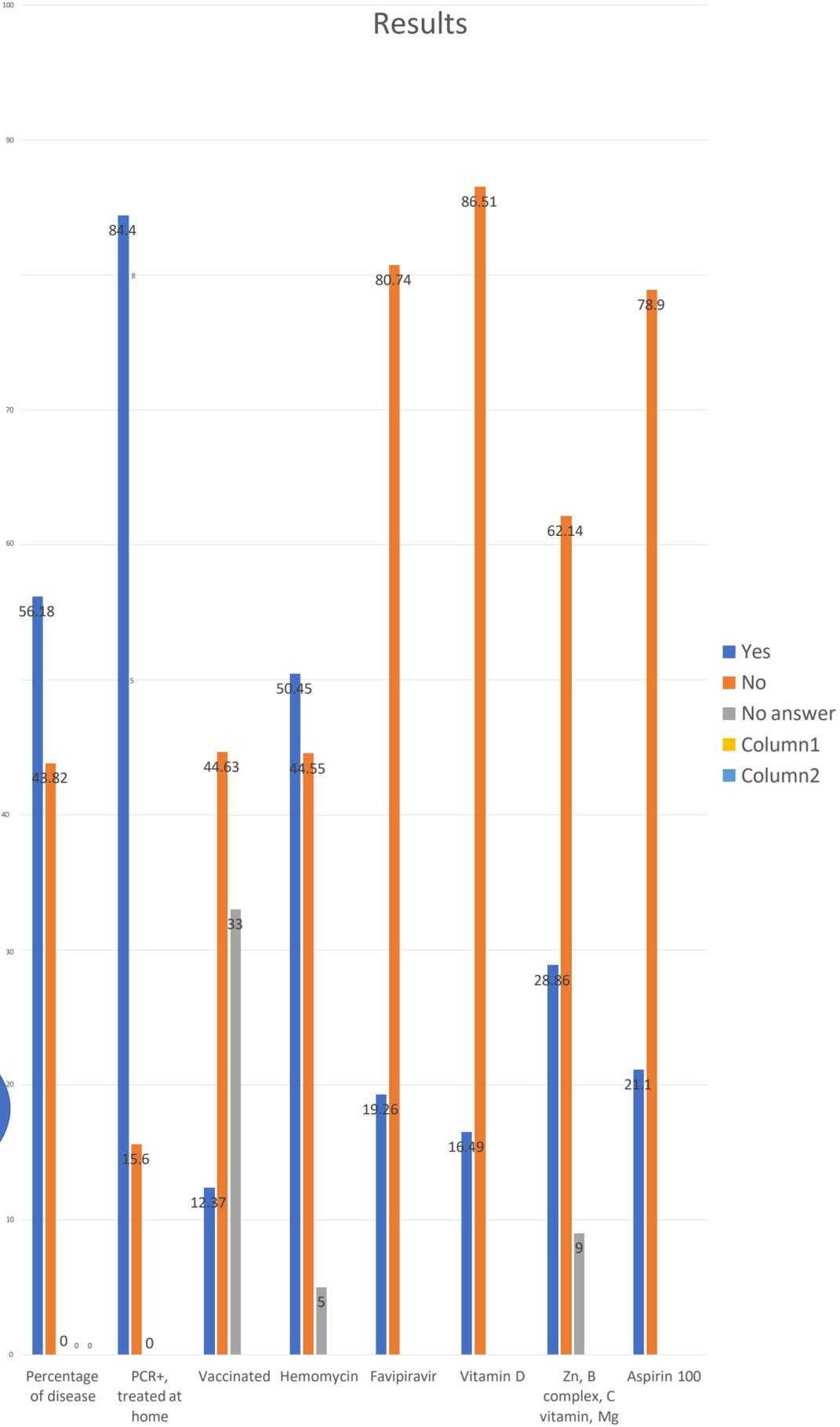
- The cross-sectional demographic study of percentage of disease incidence in the student population (No 194).
- The different experiences in the treatment of Covid-19 in this population.

**Material and methods**

- The voluntary, anonymous, demographic-epidemiological questionnaire performed on students, average age of 24 years.
- The two-part questionnaire: in the first part were socio-demographic questions, in the second part were questions about disease, length, method and place of treatment, also about supplementation.

**Results and Discussion**

- Results are shown in the chart **Results**, in the form of percentage of those students from 194 who were infected (109), it was 56,18%. From that number 84,4% were PCR (+).
- 71% were female, 29% male; 93,3% students are in the age between 21-25.
- In the largest cases was used the Hemomycin, also Favipiravir, used and approved in Japan in the treatment of the influenza from 2014th.
- Hypercoagulation as a side effect of excessive inflammatory cascade is the main factor that increases mortality in patients with a more serious clinical picture of COVID-19. Aspirin 100 was used in our study in the 21.10% of cases
- The Vitamin D supplementation is associated with improved and more favorable treatment outcomes for COVID-19 infection - especially if used after diagnosis of infection. Viral infection also leads to depletion of the immune system accompanied by a lack of micronutrients and their reserves and they were used in our study as it shown at the chart **Results**.



## Conclusion

The treatment requires the use of antivirals and immunomodulators, as well as antibiotics depending on the clinical picture of the disease. During recovery from COVID-19, it is necessary to recover the immune system - due to deficiency of many important substances for its maintenance (vitamins, minerals, essentials). In the future, it is necessary to give more precise answers to many questions related to this disease, but also to intensify efforts to increase awareness of the importance of vaccination.

**References:**  
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 Liu L, Wei Q, Alvarez X, Wang H, Du Y, Zhu H, Hong J, Jingying Z, Pokman L, Linqui Z, Lackner A, Chuan Q, Zhiwei C. Epithelial cells lining salivary gland ducts are early target cells of severe acute respiratory syndrome coronavirus infection in the upper respiratory tracts of rhesus macaques. *J Virol*. 2011; 85 (8): 4025-30.  
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