

STUDY OF CORRECTION OF MIXED INFECTIONS WITH PROBIOTICS IN RECONVALENTS OF COVID-19 INFECTION

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ABSTRACT

Most cases of COVID-19 infection were observed in men aged 19-39 (54%) (63%). In the convalescents of the main group, mixed infection (74.2%) was observed 6.5 times more than in the control group. In the control group, mono infection (88.6%) was observed 3 times more than in the main group. Convalescents in the main group had the most *Kl.pneumoniae* (28%), *St.aureus* (26%) and *Escherichia coli lac(-)* (22%), as a mixed infection *Kl.pneumoniae* + *Pr.vulgaris* 19% and *St. aureus* + *E.coli lac(-)* was found to be 18% [1].

Key words: COVID-19, diarrhea, intestinal microflora, bacteria.

INTRODUCTION

The SARS-CoV-2 infection has emerged as a global epidemic threat since the end of 2019. According to the WHO data as of November 10, 2020, the total number of confirmed COVID-19 cases worldwide exceeds 49.7 million, with more

than 1.2 million (2.4%) deaths, over 37 million (74.4%) recoveries, and more than 11.5 million (23.2%) patients being treated in hospitals for varying severity of the disease [2].

Considering the above information, the master's topic titled "Effectiveness of Correcting Dysbiotic States in the Intestinal Microflora of Convalescents with COVID-19 Infection" is a pressing issue. The results obtained may allow for the rapid and easy alleviation of diarrhea syndrome in COVID-19 patients and convalescents [3].

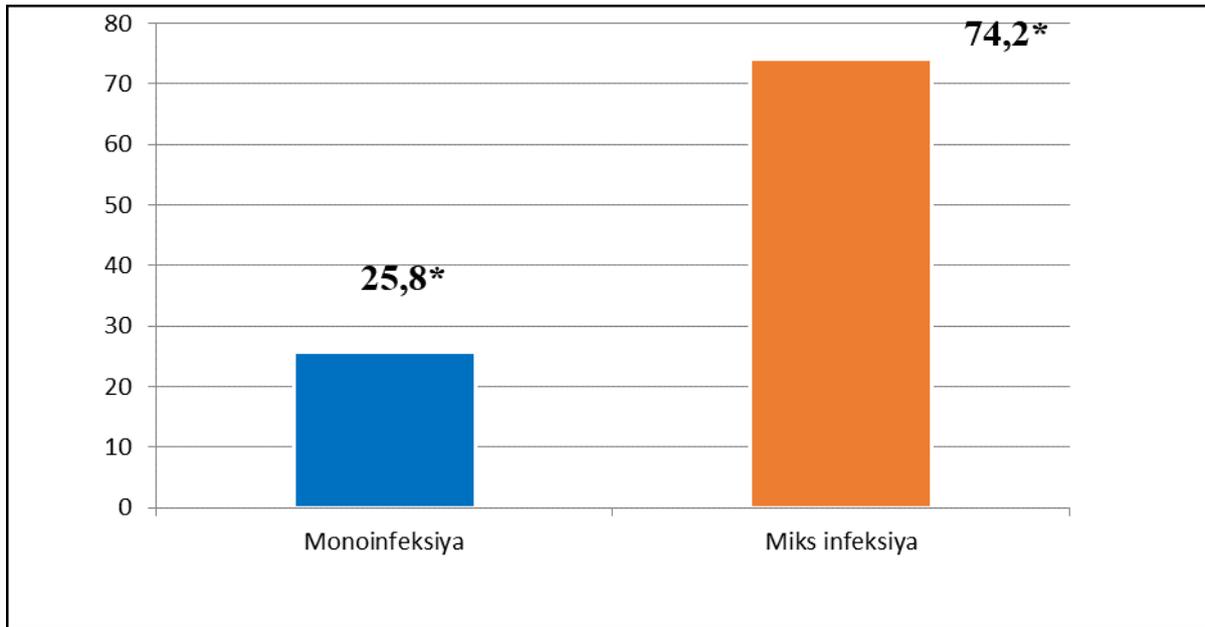
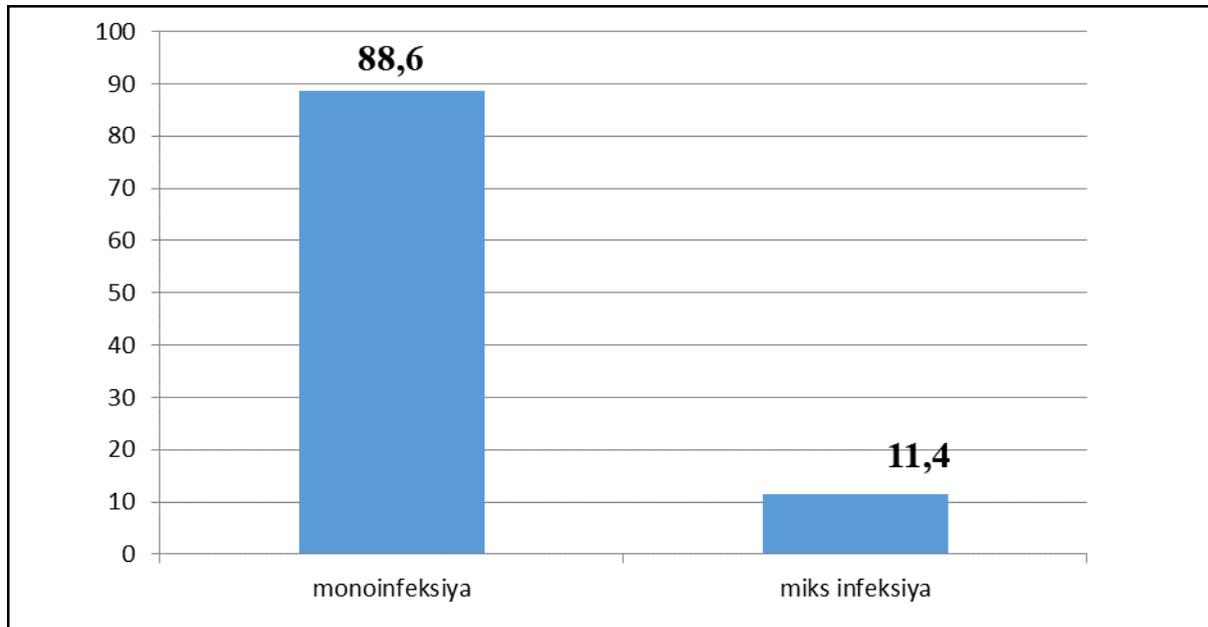
The aim of our research: To correct the cases of mono and mixed infections in the intestinal microflora of convalescents with COVID-19 infection.

Materials and Methods: We selected 100 patients who approached the multi-specialty clinic of the Tashkent Medical Academy and the Olmazor District Center for Sanitary Epidemiological Wellbeing, complaining of abdominal pain, green stool, and liquid stool. These patients were under dispensary control with a diagnosis of "COVID-19 infection convalescent" at the 16th Family Polyclinic of Tashkent City, and their stool samples were examined in the bacteriological laboratories of the Tashkent Medical Academy multi-specialty clinic and the Olmazor District Center for Sanitary Epidemiological Wellbeing. Among the 100 convalescents in our observation, 63 (63%) were male, and 37 (37%) were female. The materials (stools) taken from the patients were inoculated onto Endo, blood agar, Sabouraud, egg yolk salt agar, bismuth sulfide agar, Wilson-Bler, bifido, and esculin nutrient media [4].

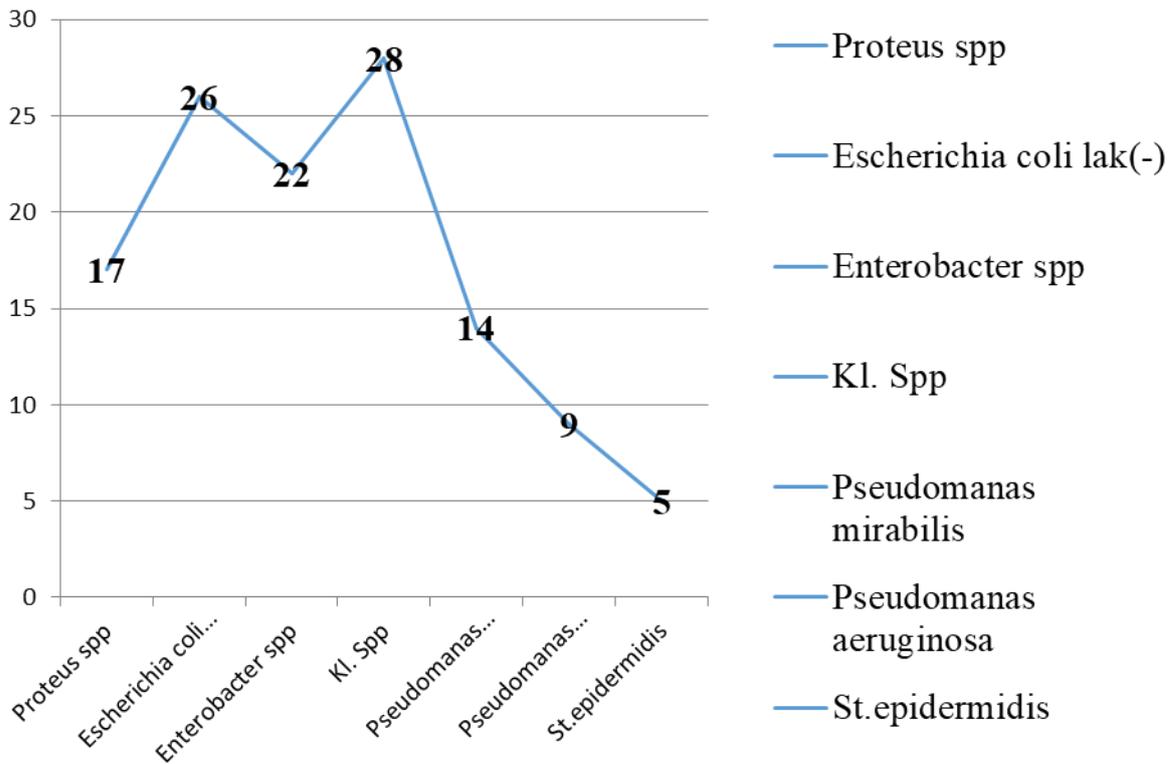
All patients in our observation underwent laboratory-instrumental examinations, including molecular genetic (PCR), serological (IFA), and bacteriological testing methods [5].

Results and Discussion: Among the 70 convalescents with diarrhea syndrome, the average age of the main group was 35 ± 1.5 years. The group without diarrhea syndrome comprised 30 convalescents and constituted the control group, with an average age of 34.6 ± 1.4 years.

The frequency of mono-infection and mixed infection was studied in both the main and control groups of our observation. The data is presented in the diagram.

**1-a diagram. Main group****1-b diagram. Control group****1-a and b diagram. The incidence rate of mono and mixed infections in convalescent patients under our supervision (*- $P < 0.05$)**

As can be seen from the diagram, in the main group, mixed infection was 74.2%, monoinfection was 25.8%. It was found that mixed infection is 3 times more than monoinfection ($P < 0.05$). In the control group, mixed infection was 11.4% and monoinfection was 88.6%. It was found that monoinfections are almost 8 times more than mixed infections ($P < 0.05$) [6].



2-diagram. The incidence rate of monoinfections in the main group

1-table.

List of probiotics given to groups

No	List of probiotics given to groups	Probiotics name
1	1-group n=25	Lacto G
2	2-group n=23	Biff-immuno
3	3-group n=22	Bifolak neo

We can see from the table that the convalescents of group 1 (n=25) were given Lacto G, group 2 (n=22) of Biff-immuno, and group 3 (n=22) of Bifolak neo.

As can be seen from the table, when the intestinal microflora was studied after correction in the convalescents under our observation, the normative indicators of E.coli bacteria with normal enzymatic activity (KHQB 107) from the indigenous bacteria of the normal intestinal microflora were 87.2 percent in the convalescents who received Lacto G. , in convalescents who received Biff-immuno was 61.2 percent and the difference between these indicators was 1.4 times, and in

convalescents who received Bifolak neo it was 63.2 percent and the difference between the indicator of group 1 was 1.38 and it was found to be significantly reliable. There were no reliable differences between the indicators of convalescents who received Biff-immuno and Bifolak neo ($P>0.05$)[7,8].

Conclusion: 1. Normative indicators of bifidum bacteria (KHQB 108) were 76.4% in convalescents receiving Lacto G, 61.4% in convalescents receiving Biff-immuno, and 66.7% in convalescents receiving Bifolak neo did.

2. Normal indicators of Lactobacilli (KHQB 1011) were 88.3% in convalescents receiving Lacto G, and 62.2% in convalescents receiving Biff-immuno. Among the convalescents who received Bifolak neo, it was 66.1 percent.

3. Normal indicators of Klebsiella (KHQB 104) were 87.1% in convalescents receiving Lacto G, and 70.5% in convalescents receiving Biff-immuno. Among the convalescents who received Bifolak neo, 79% of Enterococcus spp. (KHQB103) normative indicators were 92.6% in convalescents receiving Lacto G, and 75.2% in convalescents receiving Biff-immuno.

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