INTESTINAL DYSBIOSIS MIGHT CONTRIBUTE TO POOR PROGNOSIS IN COVID-19

Hüseyin S. Bozkurt

Correspondence Author: Huseyin Sancar Bozkurt. Maltepe University, Internal Medicine, Clinic of Gastroenterology. e-mail: sancarb79@gmail.com. Phone: 00905054482291

ORCID number: 0000-0003-2097-2950

Conflict of Interest: The author declare no any financial disclosure

Introduction

Some of the drugs used during COVID-19 pandemic might have potential intestinal dysbiosis-causing effects. Intestinal dysbiosis may affects the response rate to treatment in patients especially with progressive lung disease in hospitalized patients¹. Disturbances in the intestinal homeostasis by either alterations in the host's genetics or alterations in the intestinal microflora could have severe effects on systemic (e.g., lung) immune responses¹.

In this analysis, we try to evaluate the situation of potential dysbiosis drugs and what can be done if dysbiosis occurs during COVID-19 treatment.

Drugs:

1-Use of azithromycin, which is the highly potential to cause intestinal dysbiosis is very likely to cause severe diarrhea, dysbiosis especially in hospital admissions².

2- Ritonavir and liponavir combination might causes intestinal dysbiosis especially in hospital admission patients³.

3-Ceftriaxone-like antibiotics, which are started by considering in treatment unresponsive, also facilitates the development of intestinal dysbiosis and Pseudomembranous enterocolitis (PME).

Suggestions:

1-Intestinal dysbiosis symptoms or findings (abdomen pain, diarrhea, bowel alterations) should be evaluated closely during Azithromycin, Ritonavir and liponavir combination or Ceftriaxone treatments.

2-If dysbiosis-facilitating treatments are given, It can be considered to start a specific single strain probiotic such as Bifidobacterium (Infantis, BB-12) for at least 1 month⁴.

3-It can be considered to give support prebiotics (Lactulos, xyloglucan, Inuline) during dysbiosis-facilitating treatments².

4-If the patient begins to have symptoms or signs of intestinal dysbiosis (Intensive bloating, diarrhea, abdominal pain, bloody defecation, etc.); consider to evaluate stool toxin A, culture, ameoba and also consider to give Rifaximin 600-800 mg / day for intractable dysbiosis findings^{5,6}.

5- If the stool toxin A + or rifaximin resistant diarrhea continues, consider to adding metronidazole treatment and evaluate to start oral vancomycin treatment ⁷

Conclusion

Covid-19 is a pandemic virus that can cause progressive disease in the lung. It should be kept in mind that intestinal dysbiosis is a negative factor in response to covid-19 treatment, especially in the hospital admission patients with progressive lung disease due to the possible intestinal dysbiosis-causing effects of some drugs used in covid-19 treatment. Intestinal dysbiosis preventive or protective approaches should be considered.

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