

Intestinal parasites infections in COVID-19 patients admitted to Tehran Army hospitals; a cross-sectional study

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Background

In the Covid-19 pandemic, military hospitals, were ready and act as the front line of the fight against the disease in Iran. Co-infection of intestinal parasites infections (IPIs) and coronavirus is a public health problem, especially in low and middle-income countries. Therefore, we investigated the prevalence of IPIs among patients with coronavirus in Iran.

Methods

Stool samples were collected from 118 patients with coronavirus. Then, standard parasitological methods including direct slide smear, formalin-ether concentration, trichrome, modified Ziehl-Neelsen and chromotrope 2R staining techniques were used for detection of intestinal protozoa and helminths.

Results

The frequency of IPIs was 13.5% (16/118) in patients with coronavirus. *Blastocystis* (6.7%) was the most common parasite detected in these patients. Other IPIs, *Giardia* spp. (2.5%), *Entamoeba coli* (2.5%), *Chilomastix mesnili* (0.84%), *Cryptosporidium* spp. (0.84%), and microsporidia spp. (0.84%) were identified in patients with coronavirus, while no person in these patients was infected with helminths. Among patients, nine persons with IPIs had gastrointestinal disorders such as diarrhea. Considering the gender, nine people with IPIs were male 18% (9/50) and seven others were female 10.3% (7/68).

Conclusion

Our results showed a relatively high prevalence of IPIs in patients with coronavirus. Moreover, our findings suggest a proper health education program for good personal hygiene habits, and also preventative measures to avoid the acquisition of IPIs in patients with coronavirus.

Keywords: Intestinal parasites infection, Covid-19 pandemic, Iran.