

Faecal microbial transplantation in the treatment of recurrent clostridioides difficile infection in comorbid patients - high risk of failure**Peter Sabaka**

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Clostridioides difficile infection (CDI) is the most common cause of nosocomial diarrhea. Faecal microbial transplantation (FMT) is the most effective treatment of recurrent CDI. However, many patients experience further recurrences after first course of FMT. The reasons for FMT failure and its risk factors are unclear. Comorbid status is a risk factor for failure of pharmacotherapy of the recurrent CDI and it might be associated with the risk of FMT failure as well.

We carried out a prospective observational cohort study in order to assess the association of comorbid status and FMT failure. Patients with recurrent CDI underwent FMT via retention enema and were followed up for 12 weeks for signs and symptoms of CDI recurrence. FMT failure was defined as recurrence of diarrhea and a positive stool test for the presence of *C. difficile* antigen or toxin during the follow-up. We assessed the association of single FMT failure with possible manageable and unmanageable risk factors. Charlson Comorbidity Index (CCI) was used to quantify the comorbidity.

A total of 60 patients (34 women, 26 men) were included in the study. Overall, 15 patients (25%) experienced single FMT failure. Of patients with $CCI \geq 7$, 50% experienced FMT failure compared to 6.67% of those with CCI below 7. Patients who experienced single FMT failure had a significantly higher CCI and significantly lower albumin concentration as compared to patients who experienced single FMT success. There was no difference in age, C-reactive protein concentration, leukocyte count and time from FMT to first defecation. In multivariate analysis, $CCI \geq 7$ was positively associated with the FMT failure. In conclusion, comorbid status is associated with the high risk of FMT failure in the treatment of recurrent CDI.

Biography

Peter Sabaka has completed his PhD at the age of 29 years from Comenius University in Bratislava, Faculty of Medicine in Bratislava, Slovak Republic. He is the associate professor and physician at the Department of Infectology and Geographical Medicine, Faculty of Medicine, Comenius University in Bratislava. He has published more than 30 papers in reputed journals.