

ABSTRACT

This bachelor thesis deals with the syndrome of small intestinal bacterial overgrowth (SIBO), a gastrointestinal disorder caused by increased total bacterial counts and abnormal microbiome composition in the small intestine. SIBO often manifests through non-specific dyspeptic symptoms, including gas bloating, abdominal pain, diarrhea, malabsorption and malnutrition. A non-invasive breath test is most commonly used to diagnose SIBO. Treatment of SIBO should include therapy for the underlying disease, bacterial eradication and nutritional support.

The main aim of this bachelor thesis is to investigate the efficacy of herbal preparations and natural antibiotics in the treatment of SIBO and to highlight the potential usage of these antibacterial agents as a stand-alone or adjunctive therapy to conventional treatment. Another aim is to confirm the hypothesis that it is impossible to predict the diagnosis of SIBO based on gastrointestinal symptoms. Therefore, treating this disease empirically without confirmation by laboratory examination is not appropriate.

The data was collected in the Gastroenterology Laboratory of the Institute of Medical Biochemistry and Laboratory Diagnostics, 1st Faculty of Medicine, Charles University in Prague and in VFN. The prevalence of gastrointestinal symptoms and other associated diseases or predisposing factors was investigated utilizing a questionnaire survey. In case of a positive result of the breath test, the patient was sent the second part of the questionnaire, which focused on the course and success of the treatment. The practical part of the thesis includes three sample case reports dealing with alternative treatments for SIBO.

Out of 60 patients, 20 were diagnosed with SIBO. A questionnaire survey confirmed a similar prevalence of gastrointestinal symptoms in the positive and negative groups. The questionnaire showed that rifaximin was the most commonly used antibiotic in conventional treatment, and relatively numerous adverse effects accompanied its use. Two out of three case studies dealing with alternative treatments showed the effectiveness of herbal therapy, and the third case study showed the effectiveness of acupuncture in a patient not responding to antibiotic treatment.

The research concludes by highlighting the importance of comprehensive treatment of SIBO and the possible use of antimicrobials and other adjuncts in its therapy. The prevalence of SIBO appears to be high and should therefore be considered more in the differential diagnosis of gastrointestinal disorders and confirmed by a breath test before any treatment is indicated.