



GUT IN FOCUS: EXTENDED ABSTRACT

## Is irritable bowel syndrome a dysbiotic bowel syndrome?

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Irritable bowel syndrome (IBS) is a clinical entity that affects up to 20% of the population (1). The etiology and underlying pathophysiology is likely multifactorial, and the condition is often leading to low quality of life. It has been suggested that the intestinal microbiota plays a significant role in IBS (2). Herein we present a case of IBS who fulfills the Rome III criteria for IBS with diarrhea (3).

A 32-year-old woman, nonsmoker, presented with frequent watery diarrhea without blood up to 20 times per day, for nearly 2 years. Four months earlier, she had a 10-day course of flucloxacillin (500 mg, three times daily) against a bacterial skin infection. She was admitted to a gastroenterological inpatient ward for rehydration and investigation. A complete infectious work-up was negative. Colonoscopy and gastroscopy including histology were normal. Blood count and chemistry were also normal.

Bile acid-related diarrhea and bacterial overgrowth were excluded as a cause for the symptoms. Rifaximin treatment was without any effect. Despite symptomatic treatment with codeine and amitriptyline, her symptoms persisted and she required halftime sick leave from work. She requested and received three transplants with an anaerobic cultivated intestinal microbiota during 1 month. The microbiota was infused through a gastroscopy in the descending part of the duodenum. A slow and remarkable improvement was noted within weeks, and she experienced one or two solid stools per day without medicines.

Four months later, she was treated with antibiotics for 10 days because of endometritis. Diarrhea returned, and she required codeine again. Two more transplants were given during 2 weeks. Prompt improvement followed, and the medicine was stopped. One year later, the patient was free from symptoms and took no drugs.

In this presented case, it is tempting to assume that the symptoms were caused by alteration of the intestinal flora (dysbiosis) possibly influenced by antibiotic treatment. The positive outcome and follow-up indicates a true treatment effect and underlines the possibility of relapse and re-treatment with microbiota transplant.

Studies suggest that dysbiosis plays a role in other conditions such as metabolic syndrome, autoimmunity, asthma, atherosclerosis, diabetes mellitus, and inflammatory bowel disease (4–6).

We suggest the introduction of the term dysbiotic bowel syndrome as a new term coined to describe the effects and consequences of a disturbed gastrointestinal microbiota leading to symptoms.

### References

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