Food–related gastrointestinal symptoms, nutrient intake and dietary interventions in patients with irritable bowel syndrome

AKADEMISK AVHANDLING

som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien vid Göteborgs universitet kommer offentligen försvaras i hörsal Björn Folkow, Medicinaregatan 9b, Göteborg

Fredagen den 30 januari 2015 kl. 09.00

av

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Avhandlingen baseras på följande arbeten:

I. Böhn L, Störsrud S, Simrén M.
Nutrient intake in patients with irritable bowel syndrome compared with the general population.

II. Böhn L, Störsrud S, Törnblom H, Bengtsson U, Simrén M.
Self-reported food-related gastrointestinal symptoms in IBS are common and associated with more severe symptoms and reduced quality of life.

III. Böhn L, Störsrud S, Törnblom H, Van Oudenhove L, Simrén M.
A randomized double-blind placebo-controlled study: Effects of the enzyme alpha-Galactosidase on gastrointestinal symptoms in IBS patients.
*Submitted for publication.*

A randomized, controlled trial comparing a diet low in FODMAPs with traditional dietary advice in patients with IBS.
*Submitted for publication.*
Food-related gastrointestinal symptoms, nutrient intake and dietary interventions in patients with irritable bowel syndrome

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ABSTRACT

Food is a recurrent problem in irritable bowel syndrome (IBS) and it is common to exclude foods, which could lead to a reduced nutrient intake. Perceived food intolerance is very common in IBS, but if specific or more generalized food intolerance is the problem is unknown. Incompletely absorbed carbohydrates (fermentable oligo-, di-, mono-saccharides and polyols, FODMAPs) can trigger gastrointestinal (GI) symptoms, but if an enzyme (α-galactosidase), capable of digesting oligosaccharides, is able to relieve meal-related symptoms, or if a diet low in FODMAPs is more efficient in reducing symptoms than traditional dietary advice is not known.

Methods: Paper 1: The nutrient intake (from food diaries) in IBS patients was compared with a sex-and-age matched population from a Swedish national dietary survey. Paper 2: IBS patients completed questionnaires to assess self-reported food intolerance and the association with other clinical and demographic variables. Paper 3: In a randomized, double-blind, placebo-controlled, crossover trial; the effect of α-galactosidase on GI symptoms in IBS patients after carbohydrate-rich meals was investigated. Paper 4: In a randomized, single-blind, parallel group, four-week trial the effect on IBS symptoms of a low FODMAP diet was compared with traditional dietary advice in IBS.

Main results: The nutrient intake in IBS patients was similar to the Swedish general population. Eighty-four percent of IBS patients reported food-related GI symptoms, especially after intake of foods rich in incompletely absorbed carbohydrates and fat. Self-reported food intolerance was associated with more severe IBS symptoms and reduced quality of life. α-galactosidase was not superior to placebo in reducing GI symptoms after carbohydrate-rich meals in IBS patients. Fifty percent in the low FODMAPs group responded favorably to the dietary intervention (reduced GI symptoms), and 46 % were responders in the group who received traditional dietary advice.

Conclusions: Despite a high degree of self-reported food intolerance in IBS, the majority of these patients seem to have adequate nutrient intake. A low FODMAPs diet and traditional IBS dietary advice, but not α-galactosidase capsules, reduce symptom burden in patients with IBS.

Keywords: irritable bowel syndrome, gastrointestinal symptoms, diet

http://hdl.handle.net/2077/37527

Gothenburg 2015