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ORIGINAL ARTICLE

Clinical response in Mexican patients with irritable bowel syndrome treated with a low diet low in fermentable carbohydrates (FODMAP)☆,☆☆

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KEYWORDS
Diet;
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Flatulence

Abstract
Background: The low FODMAP diet eliminates carbohydrates and fermentable alcohols because they are not absorbed by the intestine, but are fermented by the microbiota, causing bloating and flatulence.
Aims: To evaluate the clinical response to the low FODMAP diet in patients with the different clinical subtypes of irritable bowel syndrome (IBS).
Materials and methods: attended to at the Gastroenterology Department in 2014 that were diagnosed with IBS based on the Rome III criteria were included in the study. They were managed with a low FODMAP diet for 21 days and their response to the symptoms of abdominal pain, bloating, flatulence, and stool form pre and post-diet were evaluated through the visual analogue scale, Bristol scale, and patient overall satisfaction. The results were analyzed by means, 95% CI, and the Student's t test.
Results: Of the 31 patients included in the study, 87% were women and the mean age was 46.48 years. Distribution was: IBS-C 64.5%, IBS-D 22.6%, and IBS-M 12.9%. The score for pain was 6.0 (95% CI 5.04-6.96) and the post-diet score was 2.77 (95% CI 1.60-3.95) (*P*<.001). The score for bloating was 7.10 (95% CI 6.13-8.06) and the post-diet score was 4.19 (95% CI 2.95-5.44) (*P*<.001). The score for flatulence was 5.94 (95% CI 4.79-7.08) and the post-diet score was 3.06 (IC95% 1.99-4.14) (*P*<.001). The pre-diet Bristol Scale result was 3.68 (95% CI 3.14-4.22) and the post-diet result was 4.10 (95% CI 3.66-4.54) (*P*=.1). The satisfaction percentage was 70.9%.

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Conclusions: In this first study on a Mexican population with IBS, there was significant improvement of the main symptoms, including pain, bloating, and flatulence after treatment with a low FODMAP diet.

PALABRAS CLAVE
Dieta;
Dieta baja en carbohidratos fermentables;
Síndrome de intestino irritable;
Dolor abdominal;
Flatulencia

Respuesta clínica en pacientes mexicanos con síndrome de intestino irritable tratados con dieta baja en carbohidratos fermentables (FODMAP)

Resumen
Antecedentes: La dieta baja en FODMAP elimina hidratos de carbono y alcoholes fermentables porque éstos no son absorbidos por el intestino pero son fermentados por la microbiota provocando distensión y flatulencia.
Objetivo: Evaluar la respuesta clínica en pacientes con síndrome de intestino irritable (SII) en sus diferentes variantes clínicas a la dieta baja en FODMAP.
Materiales y métodos: Se incluyó a pacientes de la consulta de Gastroenterología, con diagnóstico de SII sobre la base de los criterios de Roma III en 2014, que fueron manejados por 21 días con dieta baja en FODMAP, evaluando la respuesta de los síntomas de dolor abdominal, distensión, flatulencia y forma de las evacuaciones pre y posdieta con escala visual análoga, escala de Bristol y la satisfacción global. Los resultados fueron analizados con promedios, IC del 95% y t de Student.
Resultados: Se incluyó a 31 pacientes, 87% mujeres. Edad promedio (46.48). La distribución fue: SII-E 64.5%, SII-D 22.6% y SII-M 12.9%. La puntuación para dolor fue 6.0 (IC del 95% 5.04-6.96) y posdieta fue 2.77 (IC del 95% 1.60-3.95) ($p < 0.001$). Para distensión fue 7.10 (IC del 95% 6.13-8.06) y posdieta 4.19 (IC del 95% 2.95-5.44) ($p< 0.001$). Para flatulencia 5.94 (IC del 95% 4.79-7.08) y posdieta 3.06 (IC del 95% 1.99-4.14) ($p< 0.001$). La escala de Bristol predieta fue 3.68 (IC del 95% 3.14-4.22) y posdieta 4.10 (IC del 95% 3.66-4.54) ($p = 0.1$). El porcentaje de satisfacción fue del 70.9%.
Conclusiones: En este primer estudio en población mexicana con SII se observó mejoría significativa de los principales síntomas incluyendo dolor, distensión y flatulencia tras una dieta baja FODMAP.

Introduction

Even though many patients with irritable bowel syndrome (IBS) believe that diet is an important part of treatment and a certain amount of success has been obtained with empirical dietary changes, it is only recently that the effect of certain specific modifications in the diet of these patients has been studied.[1]

The FODMAPs include short chain carbohydrates, such as fructose and lactose, fructo and galacto-oligosaccharides, such as fructans and galactans, and polyhydric alcohols, such as sorbitol and mannitol. The term fructans includes carbohydrates with chains consisting of more than 10 carbons, called inulins.[2]

The low FODMAP diet excludes fermentable fructans, oligosaccharides, disaccharides, monosaccharides, and polyoles.[3]

It is currently known that these carbohydrates are poorly absorbed in the small bowel and when they reach the colon they are fermented, producing gas and bloating. Their symptom-producing mechanism is due to distension, which is a product of their osmotic effect and rapid fermentation, mainly to hydrogen.[4]

Patients with functional gastrointestinal disorders usually present with complaints related to an excess of intestinal gas, mainly presenting as abdominal bloating and flatulence.[5]

In recent studies, the low FODMAP diet has been shown to be efficacious in the treatment of IBS patients,[1,4–12] but no studies have analyzed the efficacy of this approach in Mexican patients.

The aim of our study was to evaluate the clinical response to the low FODMAP diet in a Mexican population group diagnosed with IBS in any of its clinical subtypes.

Methods

An experimental, comparative, longitudinal, prospective, clinical study was conducted. It included patients seen at the