Abstract

Background: Irritable Bowel Syndrome (IBS) is characterized by the worsening of symptoms with a high fiber diet. This intolerance could be related to an increase in colonic bacterial fermentation. The hydrogen breath test (HBT) is a marker of the intestinal microflora fermentative capacity. Aim: To assess if there is an association between hydrogen (H2) levels and clinical changes between diets with and without bran. Patients and methods: 10 women with predominantly constipated irritable bowel syndrome (Rome II criteria) received a low fiber diet during one week. This phase was followed by a second 7 day period with the same diet but supplemented with 12 g of crude dietary fiber. At the end of both periods, patients completed a symptom scale (Lickert type) and performed a HBT. Results: Comparing both periods with a different diet the median difference in the clinical scale score (-2.5) shows a tendency favorable to the diet without bran, p=0.048. In the fiber period the median increase of 2 ppm in H2 values was not significant different. Neither was possible to establish an association between breath H2 and the clinical response to a fiber diet. Conclusions: In this pilot study we could not detect any association between breath H2 levels and the clinical response to dietary fiber.