

Commentary: What Diet is the Best for IBD Patients?

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Inflammatory bowel diseases (IBD) are lifelong conditions and include ulcerative colitis (UC) and Crohn's disease (CD). Incidence of IBD has increased worldwide: it is growing in developed countries as Europe and north America and it is rapidly increasing even in developing countries where IBD were uncommon. This rapid change in the epidemiology of IBD is associated to changes in lifestyle and to the spread of the western diet, high in fat and in animal proteins but low in vegetables and fruits; differences in incidence and prevalence between south European countries, as Italy, Greece and Spain and north European countries highlighted this concept giving to the Mediterranean diet, that is poor in fat and rich in vegetables and fruits, a potential protective role in contrast with the western diet [1]. The food we consume can contribute to changes in gut microbiota and through these changes can affect intestinal permeability [2] leading to IBD.

Diet has not traditionally been part of the gastroenterologist's armamentarium in adult IBD patients. We, as clinicians, are more used to be focused on medication compliance and maybe we underestimate the role of diet. But patients' point of view is often different: they ask frequently to us advice about food and if there is a particular type of diet to follow to control disease and/or symptoms. Moreover, many of them have a complicated relationship with food and struggle in knowing what to eat. Data from medical literature highlights how important is diet from the patients' perspective: approximately 40% of CD patients believe that diet can control symptoms and almost 80% believe that diet is a fundamental part in the management of the disease; moreover 40% of IBD patients have attempted different diets with or without the assistance of a dietician [3].

So what diet is the best for IBD patients?

There is no one diet that has been shown to be efficacious for all IBD patients; some people report that changing their diet helps their symptoms, but diet modifications are different for different patients. Few papers have examined the association of diet with the natural history of IBD. In a prospective study published in 2004, it was documented an association between high consumption of red and processed meat, eggs and proteins and UC flares [4]. There are also studies on dietary intervention that show possible modification of disease evolution: for example, exclusive enteral nutrition in pediatric CD patients with elemental or semi-elemental diet is effective in induction of remission (response rate almost 80%) and for maintenance of remission (almost 50%) [5]; unfortunately in the adult setting results are not so impressive and this kind of diet is not effective at all in UC. A study observed patients for 2 years and showed efficacy of a semi-vegetarian diet when compared with a normal diet in ability of maintain clinical remission (94 vs 33%) [6] and that's maybe because fiber, fruits and vegetables have an important role in intestinal transit and promotes butyrate and other SCFAs production that are nutrients for colonocytes and enhance the immune response [7].

There are some defined diets, based on an underlying theory of how food interacts with body; a recent systematic revision of medical literature showed that exclusion diets are effective in controlling symptoms and inflammation in IBD patients: the specific carbohydrate diet (SCD) and a low FODMAPs (Fermentable Oligo-Di-Monosaccharides and Polyols) diet are the two most effective diets [8].

SCD is one of the most popular diet in IBD; it permits only monosaccharides (glucose, galactose and fructose). Carbohydrates have an important influence on microbiota's maintenance and growth, but polysaccharides and disaccharides are poorly adsorbed resulting in bacterial overgrowth with consequent exacerbation of mucosal damage [9]. Diet is supplemented with homemade yogurt free from

lactose, unprocessed meat, fruit and fresh vegetables with the exclusion of potatoes and tuber vegetables. No grains, milk, canned meat-fruit-vegetables are allowed as well as processed and smoked meat. This kind of diet is one of the most difficult diet available and is not easy to follow because it is very restrictive. It has the evidence of efficacy in symptoms control and in the reduction/control of intestinal inflammation; moreover, the fecal microbiome of patients with IBD following the SCD may be different and more biodiverse than patients with IBD following a western diet [3].

Many patients with an active IBD can complain functional symptom similar to IBS patients for whom the FODMAPs diet has been promoted. The underlying theory of the FODMAPs diet is similar to that of SCD and is based on the assumption that poorly absorbed carbohydrates trigger bacterial overgrowth resulting in gas formation, bloating, abdominal pain and change in bowel habits; moreover, FODMAPs are osmotically active and increase the fluid delivery to the colon [10]. This kind of diet is similar to SCD and is very restrictive on fruit and vegetable intake but unlike SCD exclusion diet tend to be more temporary and reintroduction of FODMAPs after several weeks of strict adherence is encouraged [5].

Its time for us to have a serious discussion with our patients about diet because data in support of a dietetic approach, in association with conventional therapy, are nowadays strong enough even if sometime we face with conflicting results. There is no sense in waiting for prospective studies to appear before recommend to our patients a correct personal diet that could be, of course, improved by guidance of a professional dietary IBD service. We should restrict animal fat, processed foods and processed carbohydrates and, basically, promote a healthy way of eating as the Mediterranean diet highlighting that our advice, based on scientific evidence, can make the difference.

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