

Preface

Nutrition and Inflammatory Bowel Diseases: A Complex and Continuous Interface

Inflammatory bowel diseases (IBD), comprising Crohn's disease and ulcerative colitis, affect an estimated 1.5 million Americans, 2.2 million individuals in Europe, and several thousands more worldwide. They are complex in their origin, arising due to a dysregulated immune response to the microbiome in a genetically predisposed individual. The past two decades have witnessed an exponential increase in our understanding of the pathogenesis of these complex diseases, highlighting the role of innate and adaptive immune responses, integrity of the intestinal barrier function, as well as alterations in the diversity and composition of the intestinal microbiome. Yet, much remains unknown regarding the origin and natural history of these diseases. In particular, the role of modifiable environmental and behavioral factors, and in particular diet, remains poorly understood.

The effects of dietary influences on the onset of IBD as well as its potential effect on the natural history and maintenance of remission are among the most frequently voiced concerns by patients and family members. Indeed, despite the advances in therapeutic agents targeting the immune response that have revolutionized IBD care, safety and durability of such therapies over the long term remains an important concern. Most patients with IBD express an interest in active management of their disease and in particular through dietary modifications. Yet this is an area where there is limited data and consequently a dearth of resources to guide patients and providers. Additionally, by virtue of pan-gastrointestinal tract involvement in IBD and the effect of both disease and treatments on absorption and eating behavior, malnutrition and specific nutritional deficiencies are common in these patients.

This book was developed to serve as a comprehensive resource to healthcare providers involved in the management of IBD. Leading experts in the field summarize the state of the art in diet and nutritional management in IBD and provide useful practical tips for patient care.

Part I lays the ground for how dietary factors may influence the development and subsequent course of inflammatory bowel diseases. The first chapter on the influence of diet on the gut microbiome proposes mechanisms how dietary factors may alter the microbiome sufficiently to serve as a pro-inflammatory trigger for immune responses, while the second chapter examines the epidemiologic evidence supporting the association between various dietary patterns, micro- and macronutrient intake, and disease onset and relapse.

Part II of this book addresses the nutritional deficiencies that affect patients with IBD with specific chapters on iron and vitamin D, both of which are frequently deficient. The third chapter in this section provides a comprehensive A-to-zinc overview of other micronutrient deficiencies and guide to their management.

Part III provides insights on various dietary therapies for the management of established inflammatory bowel disease by first reviewing the most rigorously supported dietary intervention—enteral nutrition. Less well-supported but nevertheless widely popular interventions such as elimination diets, prebiotics, and probiotics are addressed in the next two chapters.

Part IV closes with a discussion of the most complex nutritional issues affecting patients with protracted and complicated courses of their IBD. The long-term outcomes and complications of total parenteral nutrition are discussed. The next two chapters summarize the pathophysiology, nutritional, and pharmacologic management of short bowel syndrome. Finally, the role of small bowel transplantation in those with refractory disease is discussed.

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Diseases

A Comprehensive Guide

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