SECTION II: DIAGNOSIS, SEROLOGY, PATHOLOGY AND CLINICAL ENTITIES AND SYNDROMES

Preface Section II

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Chapters 7 to 14

- 7. New Tools for the Diagnosis of Celiac Disease. Fernando Fernández Bañares, Carme Farré, Anna Carrasco, Meritxell Mariné, Maria Esteve.
- 8. Intestinal Biopsy in the Diagnosis of Celiac Disease: Is it still the Gold Standards? Juan P. Palazzo.
- 9. Clinical Manifestations of Celiac Disease and Diagnostic Criteria: Differences among Children, Adolescents and Adults. Maria Luisa Mearin, Miguel Montoro Huguet, Isabel Polanco, Carmen Ribes Köninckx, Santos Santolaria.
- 10. Extraintestinal Manifestations of Celiac Disease and Associated Disorders. Alfredo J. Lucendo, Luis Rodrigo, A. Salvador Peña.
- 11. Follow-up of Celiac Disease Patient: Is Mucosal Recovery a Goal Therapy? Santiago Vivas, Laura Arias, Luis Vaquero.
- 12. Quality of Life and Psychological Distress in the Patient with Celiac Disease. Claudia Herrera-de Guise, Francesc Casellas.

- 13. Non-Celiac Gluten Sensitivity. Javier Molina-Infante, Santos Santolaria, Fernando Fernández Bañares.
- 14. Wheat as an allergen: Baker's asthma, food and wheat polen allergy. Alicia Armentia, Eduardo Arranz, José A. Garrote, Javier Santos.

The scope of **Section II** is to provide a comprehensive review about both diagnostic and clinical aspects of celiac disease, with particular emphasis on new aspects have appeared in recent years.

Chapter 7 describes new tools for diagnosing celiac disease, which may be of help in at least three frequent clinical situations: 1) HLA-DQ2/8+ individuals on a self-prescribed gluten-free diet; 2) Patients with seronegative villous atrophy; and 3) HLA-DQ2/8+ patients with lymphocytic enteritis and either positive (often with low/borderline titers increasing the risk of false positives) or negative celiac serology. In this sense, the role of $\gamma\delta$ + IEL count, the detection of subepithelial tissue transglutaminase antibodies, the whole blood cytokine release assays (ELISPOT), and the tetramer test are discussed.

Chapter 8 reviews how important is and what role the biopsy of the small bowel plays in the diagnosis of celiac disease. The histological differential diagnosis of the abnormal small bowel and the work-up of suspected refractory sprue are reviewed.

Chapter 9 discusses the clinical manifestations of celiac disease with specific emphasis in the differences between child and adult celiac disease. The present diagnostic criteria of celiac disease in children and adult are discussed. Likewise, present rules for clinical practice of how

to diagnose celiac disease are provided. The diagnosis of celiac disease in special situations is also discussed.

Chapter 10 extensively reviews the extraintestinal manifestations and associated disorders of celiac disease. First, extraintestinal manifestations such as oral manifestations, hematological disorders, and osteoporosis. Second, gluten-related associated diseases with genetic links, such as dermatitis herpetiformis and gluten ataxia. Finally, associated diseases such as type-1 diabetes mellitus, thyroid diseases, and malignancy.

Chapter 11 deals with the follow-up of the celiac disease patient and discusses on the basis of present acknowledge if mucosal recovery is a goal of therapy. The importance of a strict gluten-free diet compliance and how monitoring the diet adherence are reviewed.

Chapter 12 reviews health-related quality of life measurements in celiac disease and their usefulness for healthcare providers and patients. The effect of gluten-free diet on quality of life is also evaluated.

Chapter 13 deals with non-celiac gluten sensitivity. This chapter updates evidence on epidemiology, pathophysiology, diagnosis and dietary interventions in NCGS, stressing the need of thorough screening for celiac disease before a diagnosis of NCGS is given, considering that natural history and dietary restriction for both entities are radically different.

Chapter 14 reviews the allergenic power among wheat proteins and the relationship between cereals in diet and allergic digestive symptoms. Also the changes in allergenic properties of wheat induced by heat and industrial processing and the allergenic cross-reactivity between cereals, pollens and other vegetal foods are discussed.

This Associate Editor would like to thank all contributors for their excellent and critical revision, and also would like to thank Dr. Luis Rodrigo and Amado Salvador Peña, the Book Editors, for their invitation to edit this book section.