

BOOK REVIEW

Primary Hyperlipidemias: An Atlas of Investigation and Diagnosis (2007). Jean Davignon, Robert Dufour. Clinical Publishing, Oxford, United Kingdom. ISBN 1-904-392-44-X; 156 pages; \$147.25

Although numerous textbooks on hyperlipidemia exist, I was not aware of an atlas on hyperlipidemia until I saw Davignon and Dufour's recently published work. It had not occurred to me how useful the atlas format would be until I opened to a random page and saw how clearly this book's large, full-colour images demonstrate the clinical manifestations, gross pathology, histopathology, biochemical findings and metabolic pathways of the common and rare primary hyperlipidemias.

The importance of timely and accurate diagnosis of dyslipidemia is of self-evident importance, because the most feared clinical consequences can be ameliorated or prevented with appropriate lifestyle and medical therapy. Therefore, it is crucial that medical students, residents, fellows and practising physicians understand the key clinical and laboratory phenotypic findings of the major hyperlipidemias. Furthermore, for those working in the tertiary or quaternary care settings, the ability to appropriately diagnose rare dyslipidemias is obviously crucial. Unfortunately, in my experience, students find the sections of their textbooks devoted to dyslipidemia confusing and, consequently, they have difficulty matching the biochemical and clinical phenotype to the appropriate genetic diagnosis. They are also confused by the fact that the rarer, monogenic dyslipidemias have multiple aliases in literature and textbooks. This text addresses these issues with a very clear discussion of the typical biochemical phenotypes associated with each lipid condition and, importantly, how that phenotype may change depending on the environmental factors. In addition, for each condition, an explicit listing of alternative names is provided.

I deliberately refer to this book as a 'text'. Although very much an atlas, packed with beautiful photos and illustrations, the term 'atlas' alone sells the book short because it contains cogent reviews of the history, pathophysiology, clinical and laboratory findings of the common and rare hyperlipidemias. It is organized into four chapters: hereditary hypercholesterolemias, hereditary hypertriglyceridemias, inherited mixed dyslipoproteinemias and inherited dyslipoproteinemias of various etiologies. Within each of these chapters is a section on each of the monogenic dyslipidemias (providing Online Mendelian Inheritance in Man [OMIM] record numbers, where relevant), clearly reviewing all diagnostically relevant

aspects of the diseases. For example, in the first chapter, the conditions discussed include familial hypercholesterolemia, familial defective apolipoprotein B-100, autosomal dominant hypercholesterolemia, deficiency of cholesterol 7-alpha-hydroxylase, autosomal recessive hypercholesterolemia and lysosomal acid lipase deficiency. Within this first chapter are 39 figures, showing everything from chemical synthetic pathways, gene structure and family pedigrees to relevant radiology and dermatology. The reader should note that this is an atlas of hyperlipidemias. So, although there may be much to write about conditions such as Tangier disease, lecithin cholesterol acyltransferase deficiency, primary hypoalphalipoproteinemia (OMIM number 604091) abetalipoproteinemia (OMIM number 200100) and hypobetalipoproteinemia (OMIM number 607236), these conditions where lipoprotein concentrations are decreased are not addressed.

Davignon and Dufour's book is referenced in a slightly different manner than the reader may be accustomed to. Instead of citations within the body of text pointing to an enumerated list of references at the end of the chapter, important concepts are referenced to a diagram or photograph whose captions expand on the point of interest. References relevant to the caption are listed sequentially at the end of the caption. At the end of each chapter are lists for further reading – landmark studies, influential papers and review articles published as recently as 2007. The reader should not, therefore, expect to find exhaustive lists of references. To my mind, this is a good thing, because the authors have filtered the reading list down to the 'useably brief' level.

This book is a must-have for the trainee, practitioner or researcher who wants a very clearly organized summary of the basic science of the inherited hyperlipidemias with outstanding images of clinical findings that will drive out any mystery from terms such as 'tuberoeruptive xanthoma' or 'lipemia retinalis'. The superb diagrams of lipid pathways and photographs of electrophoretic gels are also extremely valuable. In short, if the reader has an interest in lipidology, they will benefit from this atlas, which, to my mind, has filled an educational and scientific void.

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