

Book Reviews

Glaucoma Handbook

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The classic academic texts on glaucoma have been a mainstay for the education of present and future clinicians. Though they have great didactic depth, many do not express practice philosophies on the management of this disease. The *Glaucoma Handbook* bridges this gap combining the academic information with practical paradigms.

This book is divided into eighteen chapters and organized well. The initial chapters provide a succinct and conscientious overview of clinical examination, epidemiology and pharmacology. These chapters serve as an excellent adjunctive resource for students and a good review for established clinicians.

The strength of this text begins to show in the treatment and management sections. Though elaborate, Dr. Litwak and his contributors manage to keep these sections a simple read making this a reference that is easy to use on a daily basis. What makes this a valuable book is that Dr. Litwak does a great

job expressing his philosophies on glaucoma management. The mix of academic information and clinical experience represented in these ideas, allows the reader to gain insight into making informed clinical decisions in the initiation of treatment and management of glaucoma patients.

The chapters are littered with appropriately placed visual fields, charts, black and white photographs and tables, the latter often containing well summarized and accessible information complementary to the text on treatment and management. The colour plates are excellent though the text could stand to use more of them. Some of the diagrams are unrefined and unsophisticated but their purpose is adequately made. Pharmacology and clinical studies are concise and well represented within the text. However it is only as current as the information available at the time it was written. It does though; give the reader a good feel for the science behind the applications.

Drs. Litwak and Ajamian do indeed save the best for last. The text ends with a chapter of clinical case study analyses that are enjoyable to read. These cases solidify the clinical application of the concepts covered in the book with these doctors' extensive experiences. Each case ends with clinical pearls expressing their philosophies. These are great for students and clinicians to learn from, and challenge themselves.

The *Glaucoma Handbook* provides a comprehensive and concise view on this disease. While not intended to be an exhaustive reference, it is a well suited as a practical clinically oriented text that complement other glaucoma books.

Ophthalmic Photography: retinal photography, angiography, and electronic imaging, 2nd edition

Patrick J. Saine, Marshall E. Tyler-Woburn, MA: Butterworth-Heinemann, 2002.
Pages: 398. ISBN

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Chapters 1 and 2 provide information on the beginnings of fluorescein angiography. An impressive time line and medical illustration from Leonardo DaVinci along with the first photographic images from the early fundus cameras are discussed in chapter 1.

Instrumentation and techniques on how the fundus camera (as a whole) works are presented in chapter 2. The three major fundus cameras used today; Topcon, Canon, & Zeiss, are discussed in detail. Also discussed are techniques from preparation, alignment, and exposure to patient follow-up. Errors and Artifacts is an excellent section with two pages of photographs describing each artifact or error. There is also an informative side bar tip on cleaning your camera.

Chapter 3 discusses stereo fundus photography and presents a historical review on the stereoscope and stereo perception. This chapter will give you techniques on photographing sequential stereo fundus photos and fluorescein angiography, along with advanced techniques in increasing the depth of field and vertical stereo for pathology in the vertical cross section.

Assessing your stereo images is also a good section. Every photographer must know how to edit for quality,

and indocyanine green (ICG). It goes into great detail regarding each dye, including injection techniques, side effects, reactions, and complications of failed injections. This is a must read for those who perform angiograms.

Chapter 5 gives the photographer information on performing fluorescein angiography and ICG. The beginning of the chapter discusses the absorption and emission of sodium fluorescein and the use of barrier and exciter filters. Step by step instruction on preparing, positioning, exposure and follow up procedures are presented. Included in this chapter is a troubleshooting section which discusses pseudofluorescence and autofluorescence, timings, reactions to the sodium fluorescein and when you "can't see the dye" are also discussed. There is also information on advanced angiographic techniques including oral fluorescein, angiography in children, anterior segment angiography, and using color film to capture fluorescein angiography.

Chapter 6 will help the photographer design his or her own dark room. Although most photographers don't have the luxury, it does assist in planning out what equipment you would need. Also discussed are the basic procedures of processing film, and making contact prints of your angiograms, as well as advanced techniques from burning and dodging to selecting the correct filter and paper.

Chapter 7 explains electronic imaging of the fundus. This is the largest chapter in the textbook. Since digital photography is now being widely used, this section gives the photographer a greater understanding on how digital fundus and fluorescein angiography works. The chapter begins with some history of the first digital fundus cameras and goes into greater detail with the section on basic technology for cameras and instrumentation. This section best explains how the digital camera works including CCD

chips, high-resolution cameras, and image bit depth, pixel defect, sensor size, aspect ratio, and color striping patterns. Image storage and archiving are also extensively reviewed along with networking. Different types of printers are compared and explained.

Enhancing your images is also discussed, from burning and dodging, to contrast, and sharpening your images. Image compression and image archiving are included in this chapter. If you're looking into purchasing a digital image system, this chapter will give the photographer insight on hardware, database and cost considerations. The last portion of this section deals with scanning laser ophthalmoscopes (SLO). It begins with a history of the SLO and gives you a list of the six manufactures of the instrument along with techniques, troubleshooting, and advanced techniques used with the SLO.

Chapter 8 discusses maximizing diagnostic information. This section will give the photographer better insight on documentation of diseases and diagnosis, including where each disease is located within the layers of the retina. There are also phases of the angiogram from normal and abnormal fluorescein and ICG.

There is also a very informative section on reading center overviews. If you are planning on becoming certified in retinal studies this section is a must read. Although reading center use different protocols, this chapter will help you understand what is involved in certifying.

Chapter 9 contains excellent descriptive interpretations of diseases from normal fundus images to variations of the fundus and posterior pole. Optic disc images along with vascular abnormalities and retinal hemorrhages are included to give the photographer a better understanding of how these diseases appear.

Saine and Tyler have done a nice job with the second edition of this text. Since ophthalmic photography is continuously evolving, the

additional chapters on electronic imaging are very informative. The Ophthalmic Photography Society and the Joint Commission of Allied Health Personnel in Ophthalmology have this book on their study guides for certification.