

BOOK REVIEWS

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Current surgical therapy, 6th ed

John Cameron; St Louis; 1998; Mosby; 1300 pages; \$135.00.

Dr Cameron should be proud of his 6th edition of "Current surgical therapy." This text meets the objective of providing up-to-date information on therapeutic options for a broad range of subject material. When my vascular fellow saw that I was reading this text, he requested that I consider exchanging my 6th edition for his 4th edition, which he had judged to be excellent, because he wanted an updated version.

The 256 chapters were appropriately divided into 19 sections (1250 pages) of which the vascular section is the largest with 195 pages. With over 300 contributing authors, one might expect some duplication of subject material and variable quality, but this occurred rarely and probably reflects the efforts of the senior editor. One general criticism was that the references do not appear in the text to document statements but only as a list at the end of each chapter.

The general surgical section had a particularly good section on postgastrectomy syndromes. I was particularly interested to find why I could no longer find any long tubes for treating small bowel obstruction; the Food and Drug Administration prohibits mercury-filled devices. One drawback was the lack of the operative details for meso-rectal excision of colon cancers. The chapter on asymptomatic gall stones was excellent in regards to indications for surgery both as a primary operation and during other operative procedures, such as colon and bariatric surgery. Of personal interest was the lack of emphasis on percutaneous drainage of intra-abdominal abscesses. In discussion, no references were provided for the original studies that showed efficacy.

The section on the pancreas, as one might expect, was excellent. The role of endoscopic retrograde cholangiopancreatography in acute pancreatitis was well defined as was the stenting of the pancreatic duct for pancreatic ascites. After a Whipple resection, anastomosis leakage after pancreaticogastrostomy or pancreaticojejunostomy was found to be similar (11% to 12%) as reported in a recent randomized study at John Hopkins. The section on adjunctive therapy suggested that chemoradiation was of benefit. I found it of interest that additional information on treatment of pancreatic cancer could be obtained through a home page on the internet.

The vascular section was quite complete and provides information on most subjects found in the larger vascular textbooks, although, as expected, with not as much detail as a vascular specialist would prefer. The chapter on the repair of abdominal aortic aneurysms was biased toward the retroperitoneal approach without giving credit to ran-

domized studies that suggest minimal differences in outcome as compared with the transabdominal approach. Claggett's chapter on carotid surgery was excellent with a good discussion of the 6 randomized studies. The chapters on infrainguinal reconstruction did not provide adequate information on valve lysis with the in situ technique. The chapter on foot gangrene was good for its discussion of Pirogoff's amputation as an alternative to a Syme's amputation. However, tissue oxygen levels were never mentioned as an aid for guidance on appropriate amputation level. The chapter on renovascular reconstruction was a little one-sided toward operative repair without referencing more recent articles on renal artery stenting.

The chapter on splenic trauma with angio-embolization and 97% salvage rate by a nonoperative treatment plan was particularly enlightening. I thought the chapter on tension-free hernia repair was particularly clear in regards to operative details. Likewise, I found the discussion of the abdominal compartment syndrome to be well presented.

In summary, I highly recommend this text and believe that the most appropriate audience will be surgical residents who should have it within their easy reach for reference. It is more user-friendly than the larger classic surgical texts and is more current in treatment programs. In the past, I have usually placed a recently reviewed text nearby for easy reference. However, this text will be best used by my son, who is in his third postgraduate year in general surgery, and so "Current surgical therapy" will be his birthday present.

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An atlas of ultrasound color flow imaging

Barry Goldberg, Daniel Merton, Colin Dean; St Louis; 1997; Mosby; 285 pages; \$140.00.

This handsome 290-page atlas of color flow ultrasound scan imaging techniques is written by radiologists and their colleagues, and this is reflected in the content and orientation of the text. The flow of information is logical. The first 3 chapters describe in detail the basic physics and practical issues with different imaging techniques and equipment. Chapters 4 through 7 describe specific imaging issues in the abdomen, obstetrics and gynecology, oncology, and peripheral vascular disease. The last chapter describes the use of contrast agents. As an atlas, it is beautifully illustrated, with key points in each chapter accom-

panied by well-reproduced ultrasound scan images that graphically represent the issues discussed. There are multiple examples of paired images of the same structure showing dramatically improved image resolution related to technical changes in the conduct of the examination. This is clearly the focus and major strength of the work.

This atlas has several minor limitations for the practicing vascular surgeon who supervises a vascular laboratory. Approximately one third of the book is devoted to topics that are not in the domain of peripheral vascular disease (gynecology, obstetrics, biliary, endocrine, neurology, oncology). The sections dealing directly with peripheral vascular applications are by necessity limited in scope. Specific diagnostic criteria are mentioned for cerebrovascular, mesenteric, and renal artery disease, but the citations are incomplete (no reference to the Moneta criteria for mesenteric ischemia, peripheral arterial duplex scan, or ACAS carotid lesions). Tabular data were effectively used in the first 3 chapters, although a demonstration of probe settings (frequency, PRF, etc) and expected success of imaging (sensitivity, specificity) would have been a useful

addition to this atlas. Instead, the details of each individual examination technique must be searched out in the body of the text. Despite this, the text was generally useful and accurate. It was especially refreshing to see explicit caveats on the use of color flow imaging in the diagnosis of vascular disease.

In summary, this well-illustrated atlas can be expected to appeal to a wide audience. Although it is particularly useful to a radiology practice that performs a variety of color flow applications, it will be a useful addition to the library of any physician who uses color flow imaging. In that regard, it is analogous to the surgical anatomy text "Extensile exposure" for providing multiple specific examples of technical solutions to difficult imaging problems.

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Doppler ultrasound remained a minority imaging methodology until the introduction of colour Doppler in 1982. In this technique, the motion of the blood is colour-coded and superimposed on the B-mode image. This allows rapid visualization of the flow patterns in vessels, allowing high-velocity jets in arteries and in cardiac chambers to be seen. It quickly became apparent that the ability to visualize flow patterns, such as the presence of intracardiac jets, was of great value. In addition, it considerably speeded up the placement of the Doppler sample volume in spectral Doppler investigation. Ultrasound images of flow, whether color flow or spectral Doppler, are essentially obtained from measurements of movement. In ultrasound scanners, a series of pulses is transmitted to detect movement of blood. Echoes from stationary tissue are the same from pulse to pulse. Echoes from moving scatterers exhibit slight differences in the time for the signal to be returned to the receiver (Figure 1). These differences can be measured as a direct time difference or, more usually, in terms of a phase shift from which the "Doppler frequency"™ is obtained (Figure 2). They are then processed to produce...

3. Goldberg BB, Merton DA, Deane CR. *An Atlas of Ultrasound Color Flow Imaging*. London: Martin Dunitz, 1997.
4. Gill RW. *Atlas of Obstetric Ultrasound*. by The International Society of Ultrasound in Obstetrics & Gynecology. under the Editorship of Professor Gianluigi Pilu. Sonographic appearance of tornado blood flow in placenta previa accreta/increta. *Ultrasound Obstet Gynecol* 2001;17(4):362-3. PubMed PMID: 11339200.
- Jauniaux E, Ogle R. Color Doppler imaging in the diagnosis and management of chorioangiomas. *Ultrasound Obstet Gynecol* 2000;15(6):463-7. PubMed PMID: 11005112.