BOOK REVIEW


The books on transoesophageal echocardiography by Labovitz and Pearson and by Missri were published this year whereas that by Sutherland and coauthors was published in 1991. All three books assume some knowledge of Doppler and echocardiographic principles and are aimed at those with some experience of transthoracic imaging.

The technical problems have until recently limited the application of transoesophageal echocardiography. Thus all three books provide a history of the recent technical developments that have enabled this technique to reach the clinical arena. In addition all three books detail what is required to develop a clinical transoesophageal echocardiography service though in practice this information is hardly sufficient.

The technique of transoesophageal Doppler and echocardiography has significant advantages over transthoracic imaging. The close proximity of the oesophagus and gastric fundus to the intrathoracic cardiac structures allows enhanced resolution and imaging of structures inaccessible to the transthoracic view, including the descending thoracic aorta and left atrial appendage. Accurately signified information to all three books is developed to 2D photography of both normal and abnormal cardiac structures, in monochrome and colour. Labovitz and Pearson's book contains the smallest number of figures at around 150, while Sutherland and coauthors include over 300.

The quality of the figures is especially impressive in the books by Missri and Sutherland and coauthors. Sutherland in particular supplements the high quantity pictures with excellent legends, schematic diagrams, and postmortem photographs required to aid interpretation.

Labovitz and Pearson's book is the only one in softback and is much the smallest of the three. The authors aim to provide only a basic introduction to transoesophageal echocardiography with particular reference to a variety of relevant pathological states. Common clinical states are covered but the content is not comprehensive, nor is it intended to be. Each chapter includes a bibliography but not references. The text is generally well written and the chapters well organised. However, the authors include chapters on "interventional TEE" and outline its use in "critically ill patients". This latter chapter includes a mishmash of clinical states covered more appropriately and in more detail in the relevant chapters and adds little to the reader's knowledge of transoesophageal echocardiography. "Interventional TEE" is misleading as the chapter refers only to the use of transoesophageal imaging in relation to interventions such as balloon dilatation of the mitral valve, closure of atrial and ventricular septal defects, and myocardial biopsy.

Missri and Sutherland and coauthors aim, with success, to provide more extensive, in depth and up to date reviews of transoesophageal Doppler and echocardiography with particular reference to its indications, value, and limitations. Both texts are very well organised, comprehensive, and informative and there is little to choose between them. Missri includes 18 separate chapters, and Sutherland and coauthors 15, with similar range of appropriate references. The areas covered in detail include dysfunction of prosthetic and native valves, congenital heart disease, the evaluation of the source of cardiac emboli, as well as paediatric and intraoperative use. Missri also includes a chapter on future applications of TOE. Missri's chapter on prosthetic valve evaluation and recognition of dysfunction is typical of many in his book. Transoesophageal imaging is not without its limitations and these are well described with respect to assessing prosthetic valves. Missri then follows this with a detailed but concise description of the basic principles behind various prosthetic valves. Examples of both the normal and abnormal function of a variety of prosthetic valves are well illustrated by colour Doppler images.

Sutherland and coauthors are the largest of the three. Its four main authors are supported by an impressive eleven contributors. As a result Sutherland and coauthors have written with at least the same detail as Missri on different aspects of the subject. Though it is two years older their book is not out of date. For example the chapter on pulmonary venous flow, which was extremely difficult to measure accurately until the advent of TOE and is currently the subject of active research, is particularly well covered. Sutherland details normal pulsed wave Doppler pulmonary venous flow and contrasts this with several illustrated examples of abnormal flow. Pulmonary venous flow, however, is of unproven clinical significance at present.

In summary, Labovitz and Pearson succeed in providing a good introduction to transoesophageal echocardiography principally for those with some experience in transthoracic imaging. The books by Missri and Sutherland and coauthors are much larger, better written, and more detailed. They provide a comprehensive review of all aspects of transoesophageal echocardiography. As up to date, in depth reference books those of both Missri and Sutherland et al can be strongly recommended, though neither is particularly cheap.

STEPHEN FORT

LETTERS TO THE EDITOR

- The British Heart Journal welcomes letters commenting on papers that it has published within the past six months.
- All letters must be typed with double spacing and signed by all authors.
- No letter should be more than 600 words.
- In general, no letter should contain more than six references (also typed with double spacing).

Emergency percutaneous transluminal coronary angioplasty (PTCA) for intractable ventricular arrhythmias associated with acute anterior myocardial infarction

Sin—Fitzpatrick et al report the value of emergency PTCA in the setting of acute myocardial infarction complicated by life-threatening ventricular arrhythmias (British Heart Journal 1993;69:453-4). We were recently involved in the management of a similar case.

A 49 year old man was admitted as an emergency with a 1 hour history of chest pain. He was a non-smoker with a history of hypertension and unstable angina. The ECG showed typical changes of an acute anterior myocardial infarction with right bundle branch block. He was given aspirin and intravenous streptokinase (1.5 MU). Thirty minutes later he sustained ventricular fibrillation and cardiac arrest. Serum electrolyte concentrations were within normal limits. During the subsequent minutes he required more than 20 DC countershocks for repeated ventricular fibrillation. There was no significant response to appropriate doses of intravenous lignocaine and amiodarone.

An intra-arteric balloon pump (IABP) was inserted and he was transferred to the cardiac catheterisation laboratory still requiring repeated DC countershocks. At cardiac catheterisation the proximal segment of the left anterior descending (LAD) artery was found to be occluded. The circumflex and dominant right coronary arteries were without significant disease. Left ventricular angiography was not performed. A guidewire was passed across the occlusion and 100 000 units of streptokinase was infused into the left system with lysis of the proximal LAD thrombus. A shallow ulcerated plaque was visualised at the site of the occluding thrombus. In addition, there was a significant stenosis in the mid LAD coronary artery. Immediately after antegrade flow was restored sustained sinus rhythm returned and further DC countershocks were not needed.

He was transferred to the intensive care unit where he was ventilated overnight. Within 24 hours he was weaned from the ventilator and the IABP was removed. Inotropic support was stopped the next day. Four days after admission intravenous vertebral vertigo showed considerable anteroseptal hypokinesia with an ejection fraction...