nificantly less than the cumulative risk of strut fracture during their expected lifetime.

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Abnormal right heart filling after cardiac surgery

SIR,—Dr Wranne and colleagues demonstrated in figure 5 of their interesting study that the lateral aspects of the tricuspid annulus showed a more pronounced motion loss after cardiac surgery than those of the mitral annulus.[1] As one of the possible explanations they suggested that the left ventricle was better preserved during surgery than the right ventricle. This theory is confirmed by an experimental study of the tissue electrolyte content in the right and left ventricular myocardium after normothermic open heart surgery in dogs.[2] Cardiac arrest had been induced (*a*) by clamping the ascending aorta, (*b*) by aortic clamping with additional injection of a cardioplegic solution, (*c*) and by electrically induced fibrillation (with preservation of the coronary circulation). Tissue electrolyte content was determined before extracorporeal circulation was started, as well as after an hour of recovery from a cardiac arrest of 30 or 45 minutes. In all these forms of cardiac arrest, tissue water had increased and potassium and magnesium decreased. These changes were more pronounced in the myocardium of the right ventricle in all experimental groups. A decrease in potassium and magnesium content in tissue is an indicator of cellular injury.[3-5] In the study in dogs the loss of these electrolytes was more pronounced in the myocardium of dogs with low cardiac output than in animals with adequate circulation after cardiac arrest. Because the dogs did not have genuine cardiac surgery cardiac arrest was relatively short and hypothermy was not used. Hence we do not believe that the observed differences between the ventricles were predominantly caused by a mechanical impediment, more pronounced exposure of the right ventricle to room temperature, or heat radiated from the operating room lights, as suggested by Wranne *et al*. We attribute this phenomenon to a proposed difference in the susceptibility of the right and left ventricular myocardium to systemic disturbances, as it has been described for various diseases, such as hyperosmolar coma or liver failure.[3 4 6] Histologically, ultrastructurally, and biochemically, the right ventricular myocardium differs from that of the left ventricle.[4 6 7] According to Doerr the different susceptibility of the ventricles to disease can be explained by phylogenesis: the right ventricle belongs mainly to the priscomyocardium and is phylogenetically older than the left ventricular neomyocardium.[6] Perhaps this so-called "theory of pathoclisis" also explains the differences between the right and left ventricular function seen after cardiac surgery and described by Wranne *et al*.

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Working party report on cardiac rehabilitation

SIR,—I was most interested to read the report from the working party on coronary rehabilitation and would like to congratulate them on their obvious hard work.[1]

Because coronary rehabilitation has not been a high technology subject it has lapsed into a cinderella type of service with a few enthusiastic doctors and many more enthusiastic nurses, physiotherapists, and occupational therapists soldiering on in isolation. It is for this reason that research has not been very forthcoming because individual units find that they do not have enough patients to produce meaningful controlled trials: for example, the trial by a Glasgow team in 1991 in the end had 12 patients in the treatment group and 10 in the control.[2]

Up to now it is the paper from O'Connor *et al* in 1989, which provided an overview of 22 small trials, that has allowed us to believe that coronary rehabilitation had a part to play in the treatment of acute myocardial infarction.[3]

Your readers may be interested to know that here in the North-West we have had the Coronary Rehabilitation Development Organisation (CReDO) for about two years now. It is a loose knit confederation of just such enthusiasts as I have described who meet quarterly to exchange ideas and support others who are in the process of setting up a rehabilitation programme.

Three things have become apparent. Firstly it requires a dedicated nurse/physiotherapist/occupational therapist around whom the whole programme pivots; secondly, it does not need much money to set up a simple scheme; and thirdly, and probably the most important, any scheme to be successful needs the wholehearted support of the consultant in charge of cardiology for that district—whether cardiologist or general physician with an interest in cardiology.

A meeting is to be held on 26 September 1992 in Oxford to try to organise a national association that may well then allow us to produce some proper scientific evidence to persuade those who control the budgets that rehabilitation is a worthwhile and cost-effective part of the treatment of myocardial infarction.

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BOOK REVIEWS

Heart disease: A textbook of cardiovascular medicine. 4th ed. Edited by Eugene Braunwald. (Pp 1874; $119.) Philadelphia, London, Toronto, Montreal, Sydney, Tokyo: W B Saunders Company, 1992. ISBN 0-7216-3097-9.

When the original edition of this comprehensive textbook appeared, I was given the opportunity to review it in 1980. It was the first of a new generation of such works, and set the standards by which others might be judged. Not only did other important similar works respond by improving their quality but a number of other textbooks have appeared, mainly in the United States though with one British based offering.

As with previous editions, Braunwald is an author or co-author of many of the chapters as well as having orchestrated the whole. He has taken considerable trouble to ensure that what appears is up to date even at the cost of shedding some earlier references from some chapters that may be of historical relevance. But as his purpose is to present contemporary evidence, this has enabled him to limit the size to some extent. Nevertheless, there are still 1874 pages of text and illustrations, with ample and appropriate references.

The whole of the subject is covered extensively and if some miss their favourite topics, that will be highly exceptional. For a description of pathological processes generally one will have to turn elsewhere and this is probably appropriate in a book aimed at providing clinically relevant information, yet readers should not forget the potential importance of such knowledge.

There have been modest changes in authorship once again between the third and fourth editions, and Braunwald's system of having all the chapters externally reviewed ensures a high standard throughout.

The most striking feature of the present edition is the lavish use of colour. Generally this is helpful and indeed to have the chapter numbers coloured red discriminates them from the pages above and makes for the easier finding of what one needs from an index that did not fail several random tests. Those interested in electrocardiography will, however, question the use of red for the tracings and a dark but absolutely crisp background for the grids (the latter is an excellent feature); surely it would have been easier for most if the conventions had been observed and the tracings had been dark and the background coloured as you see in clinical tracings. In other respects I accept, and on the whole welcome, the use of colour, which

enables one to pick out relevant parts of illustrations more easily.

Once again, Braunwald and his contributors have provided us with a standard reference book on cardiology superior to its competitors and essential for those who want up to date information properly presented and well argued. The size of the book cannot be criticised because it reflects the scope of the specialty. I have previously found the two volume version easier to handle and suspect that others will also find this so with the fourth edition. My minor caveats do not detract from my conclusion that the fourth edition is excellent and up to date.

DENNIS M KRIKLER

Atrial fibrillation: mechanisms and management. Edited by Rodney H Falk and Philip J Podrid. (Pp 448; $119.) New York: Raven Press, 1991. ISBN 0-88167-831-7.

The strength of this contribution lies in the fact that the editors have invited and collected contributions rarely published together, so that we have in one modest volume a comprehensive account of the subject. Those looking for definitive answers may not find them, however. There are for example two separate chapters dealing with pathology, from slightly different aspects, where one single and authoritative chapter would have suited most readers.

Clinicians not already aware of the way in which the multiple wavelet theory has been refined and illustrated will find the chapter by Janse and Allessie illuminating. The various causes for atrial fibrillation, the way in which it can express itself under different circumstances, and the range of medications available as well as newer techniques for ablating the atrioventricular node all receive extensive discussion.

Among the chapters worthy of special consideration is that by Coumel on the neural aspect of paroxysmal fibrillation, a consideration not widely discussed in publications in English language journals; epitomised, perhaps, by the fact that the chapter preceding his, on idiopathic atrial fibrillation, does not cite his work. The final chapter, by the editors, is described as an overview of the management of atrial fibrillation but in essence it is a brief account of all aspects of the subject, in what seems to be an attempt to correlate aetiology with specific forms of treatment under various circumstances.

Whatever the authors had done they were bound to run into difficulties with regard to atrial flutter, which does not receive separate consideration or correlation except in passing.

If consulted with care and with knowledge of the approach adopted by the editors, there are many facets of atrial fibrillation covered here that will be of interest to all, and, with this proviso, this has potential value for a wide range of readers.

DENNIS M KRIKLER

The titles reviewed here are available from the BMJ Bookshop, PO Box 295, London WC1H 9TE. Prices include postage in the UK and for members of the British Forces Overseas, but overseas customers should add £2 per item for postage and packing. Payment can be made by cheque in sterling drawn on a UK bank, or by credit card (MasterCard, VISA, or American Express) stating card number, expiry date, and your full name.

BRITISH CARDIAC SOCIETY NEWSLETTER

Annual Meeting at Harrogate

The Harrogate meeting was judged a success. Over 900 physicians and surgeons attended over the three days. In addition 350 cardiac nurses came to the part of the meeting arranged for them. There were 100 at the technicians programme. The 150 oral presentations were generally of a high standard, and the 120 posters were well received. Overall we were able to accept 39% of the abstracts that were submitted, but the figure could well have been higher if more time had been available. We were delighted to welcome Dr Eugene Braunwald for the Thomas Lewis Lecture, and Raphael Balcon's St Cyres Lecture was another highlight. John Parker arranged a very informative and somewhat worrying session on the internal market that was well attended though it had to be scheduled at the end of the sessions originally planned for the day. The presentations for the Young Investigators Award were of a high standard. The judges—who included Professor Lars Rydén from Gothenburg—awarded first prize to Hugh Watkins for his paper on the Clinical Application of Molecular Genetic Analysis in Familial Hypertrophic Cardiomyopathy, but found it impossible to separate the remaining three finalists. The position of runner up was therefore shared by Stematis Adamopoulos, Guy Haywood, and Nicholas Peters. The dedicated session for district hospital cardiologists proved a very popular innovation, and is likely to remain a feature in subsequent meetings. It would be unrealistic to expect that nothing could be criticised, however, and as always we have noted some areas that will require more attention next year. We will be glad to receive comments—especially constructive adverse ones.

We welcomed Professor Robert Slama as President of the French Cardiac Society and Professor Rudolf Juchems representing the German Cardiac Society.

We intend to maintain and develop such relationships that have been established in recent years—to a degree that we already enjoy with our Irish colleagues. Council has expressed a wish to invite representatives from additional European societies in future years, a development that accords well with the trend to increasing European cooperation.

Future Annual Meetings

Torquay, Glasgow, and then Harrogate . . . These successive venues for the British Cardiac Society annual meeting have convinced members that venturing outside London has considerable advantages. We see parts of the United Kingdom that many of us do not know well, and those of us who work in the south east can more easily resist the temptation to put in a little time at the hospital. Because we are more confined, we have more opportunities for formal and informal gatherings, and the meetings therefore feel more cohesive. We are committed to Wembley next year and to Torquay in 1994. But members at the recent annual general meeting decided by a unanimous show of hands that we forego the option of returning to Wembley in 1995 in favour of Harrogate. An additional factor that may have influenced opinion was the increased cost to the Society of meetings in London. We have to face much higher expenditure these days because of the expansion in the activities of the Society: a fall in income could force us to reduce our financial reserves that we are anxious to keep at a prudent level. These considerations do not preclude maintaining Wembley in a rotation of venues, and indeed many members from other parts of the country have expressed a wish that we do so. We would prefer to introduce more variety than a four-way rotation between Wembley, Glasgow, Torquay, and Harrogate but we are constrained by the size of the site we require for sessions plus exhibition. Other possibilities are Birmingham (which is expensive), Belfast, Edinburgh, and Bournemouth. No decisions have yet been taken for beyond 1996 when we will be in Glasgow again, but they must be made soon because of the pressure on bookings at the major conference centres. Our recent meeting had to coincide with half term—an unpopular piece of timing. We hope to avoid this in future, but we need good planning—plus inside reliable information from the education authorities.

Developments within the Society

Our premises in Fitzroy Square have five levels. The basement is now equipped as a seminar room that we hope will be well used. In addition to our own teach-ins and workshops as well as the requirements of the affiliated groups, the Officers would be prepared to consider applications from members who are seeking a venue for small cardiac meetings of up to 35 people. The criteria that would be applied in judging suitability would be based on the current philosophy of the society, and no doubt these can be codified as experience increases. The ground floor is used for a reception area and administration. When our resources permit more expenditure, this area will be decorated in a manner appropriate to a Georgian house: at present it is acceptable but uninspiring. On the first floor we have a board room and the principal office. The second floor houses the editorial offices of the *British Heart Journal*, and the joint offices for the affiliated groups—now in the process of moving in. On the third floor we have the new premises of the Resuscitation Council of the United Kingdom—an organisation that will be playing an increasing role in maintaining standards and providing instructor courses in basic and advanced cardiac life support. One large room remains unoccupied, but one of our sister societies is interested in the possibility of moving in, and negotiations are in progress.

We have already mentioned our need to increase the number of permanent staff in the house. Tribute should be paid to Elaine Brown and Jennie Lodge who have faced a huge expansion in the commitments of the Society. We have had an overwhelming response in our quest to fill the new post of Executive Secretary. The task of drawing up a short list has been formidable, but an appointment should be made on 2 July. Suitable staffing arrangements must also be agreed with the affiliated groups and for the Resuscitation Council. We will give more news next month.