

atmospheric pressure does. In practice, bile usually flows out under obvious pressure when the cystic duct is incised.

The phenomenon of 'silent' bile duct stones is widely accepted, and may occur in up to 12% of patients, as referenced in our original paper. Drs Mayol and Alvarez Fernandez-Represa have fallen into a common trap of assuming that lack of symptoms at follow up of only 2–12 months⁷ is equivalent to absence of retained stones. It is well recognised that bile duct stones may present many years after surgery.⁹ It may be true that stones which, by definition, are 'silent' will follow a benign course but only longterm follow up will prove this.

The commonest reason for failing to cannulate the cystic duct was a very narrow duct. Such ducts are clearly at low risk of conducting stones and, during early follow up, no sequelae have arisen.

We do not pretend to answer the question of whether peroperative cholangiography reduces morbidity and death rates in laparoscopic cholecystectomy. Our correspondents make assumptions about rates of false-positive cholangiography, which we have already discussed. Peroperative cholangiography is a procedure with an extremely small risk of complications and to suggest that diagnostic ERCP equates with 'endoscopic bile duct exploration' is quite misleading. Only patients with confirmed duct stones had endoscopic stone extraction with its attendant risks. In the papers cited by Mayol and Alvarez Fernandez-Represa, the only bile duct injury occurred in a patient who was not subjected to operative cholangiography and this was not recognised at the time of surgery.⁸

Our paper compared two protocols for investigating and managing the common bile duct in patients undergoing laparoscopic cholecystectomy. As we concluded before, our data do not allow us to recommend one policy above the other. The controversy indeed seems set to continue.

P J HAINSWORTH
T W J LENNARD

University Department of Surgery,
The New Medical School,
Framlington Place,
Newcastle upon Tyne
NE2 4HH

- Hunt DR, Reiter L, Scott AJ. Pre-operative ultrasound measurement of bile duct diameter: basis for selective cholangiography. *Aust NZ J Surg* 1990; **60**: 189–92.
- Cronin JJ. US diagnosis of choledocholithiasis: a reappraisal. *Radiology* 1986; **161**: 133–4.
- Gross BH, Harter LP, Gore RM, Callen PW, Filly RA, Shapiro HA, et al. Ultrasonic evaluation of common bile duct stones: prospective comparison with endoscopic retrograde cholangiopancreatography. *Radiology* 1983; **146**: 471–4.
- Voyles CR, Sanders DL, Hogan R. Common bile duct evaluation in the era of laparoscopic cholecystectomy. *Ann Surg* 1994; **219**: 744–52.
- Mofti AB, Ahmed I, Tandon RC, Al-Tameem MM, Al-Khudairy NN. Routine or selective preoperative cholangiography. *Br J Surg* 1986; **73**: 548–50.
- Scott-Coombes D, Thompson JN. Bile duct stones and laparoscopic cholecystectomy [Editorial]. *BMJ* 1991; **303**: 1281–2.
- Soper NJ, Dunnegan DL. Routine versus selective intraoperative cholangiography during laparoscopic cholecystectomy. *World J Surg* 1992; **16**: 1133–40.
- Hauer-Jensen M, Kåresen R, Nygaard K, et al. Consequences of routine preoperative cholangiography during cholecystectomy for gallstone disease; a prospective, randomized study. *World J Surg* 1986; **10**: 996–1002.
- Thurston OG, McDougall RM. The effect of hepatic bile on retained common duct stones. *Surg Gynecol Obstet* 1976; **143**: 625–7.

BOOK REVIEWS

Gut Peptides: Biochemistry and Physiology. By J H Walsh, G J Dockray. (Pp 896; illustrated; \$189.00.) New York: Raven Press, 1994.

In 1970 the international spokesman of gut endocrinology, Morton Grossman, suggested that endocrine regulation of the digestive tract resulted from interaction between the three known gut hormones, secretin, gastrin, and cholecystokinin. There was neither need nor room for additional gut peptides. Grossman's intriguing hypothesis never received much interest, because a number of new hormones in the following years emerged from the darkness of the gut. Several first saw the light in Viktor Mutt's laboratory in Stockholm. The new hormones made the 1970s exciting times to be in gut peptide research, not only because of the new hormones, but also because several turned out to be neurotransmitters in the central and peripheral nervous systems. Important functions such as growth effects and paracrine secretion of gut hormones were also discovered in the 1970s. Moreover, a number of gut peptide producing tumours and accompanying syndromes were identified. On the whole gut endocrinology was so topical in those days, that not only *Gut* and *Gastroenterology*, but also general journals like *Nature* and *Science* often opened their pages for gut peptide news.

In the past decade gut peptide research has only rarely hit the front pages. The comparative silence might suggest that Grossman in some way was right: gut endocrinology is a limited business. Two of his disciples, Walsh and Dockray, however, now show with their heavy volume that Grossman was indeed wrong. Gut peptides are obviously a never ending story.

What is it that has lately re-energised the field so much that a 900 page volume now appears? The single most important factor seems to be developments in cell biology. 'Juice' physiologists and clinicians from the 1960s and the 1970s may find it difficult to accept how molecular and cell biology have conquered gut endocrinology in the 1980s and 1990s. Hence, the book edited by Walsh and Dockray mirrors how the main issues in gut peptide research today relate to regulation of gene expression; cell specific precursor processing; receptor structure, and signal transduction; growth factors; cell transformation and cancer development. Accordingly, the important clinical challenge in modern gut peptide research has become not so much duodenal ulcer disease as gastrointestinal malignancies.

The book is traditionally divided into three sections. The first covers general aspects such as molecular biology approaches and signal transduction. The next section contains 19 chapters about individual peptides or peptide systems written after a logical general scheme. Notably, this section includes important and well written chapters about growth factors expressed in the gut – that is, epidermal growth factor, transforming growth factors α and β , and insulin like growth factors. The last section integrates the role of individual

peptides in physiological and pathophysiological regulation of the digestive tract – for instance secretion, motility, absorption, and growth. Correspondingly, aspects of peptide ulcer, and – above all – neoplasia are also covered.

Since the late 1960s a vast number of books about either individual gut peptides or gut hormones in general have been published with short intervals. It is therefore relevant to ask whether the present expensive volume is really necessary? My answer is ambivalent. On the one hand, it is useful for basic and clinical gastroenterologists to have new comprehensive textbooks at regular intervals with novel, critical reviews, and accurate, updated references. On the other hand this book fails to comply with the latest requirement in several ways. Firstly, the latest references in most chapters are from 1991 (this book was published in 1994). Accordingly much text is already old hat. Secondly, several references are marred not only by printing errors and misleading titles (for instance 'Gastrin in the human fetus. Distribution in rat brain!'), but also by wrong journal indications. For instance half of the references to the key chapter about signal transduction are complete nonsense without relation to the text. What happened?

J F REHFELD

Nutritional Biochemistry. By T Brody. (Pp 658; illustrated; \$75.) San Diego, USA: Academic Press, 1994.

Numerous studies in the 'seventies and early 'eighties drew attention to the high prevalence of malnutrition in hospital patients, and recently published work suggests that it is still a common occurrence. It is multifactorial in origin but ignorance of the importance of nutrition and the consequences of malnutrition are important factors. Nutrition remains under-represented in most undergraduate medical curriculums and in the consciousness of many health care professionals. The publication of a book specifically aimed at health care students is thus a potentially welcome event.

Textbooks of nutrition in general seek either to provide an overview of the whole subject, or to concentrate on the provision of nutritional support. Brody's book is unusual in that it deals specifically with the biochemistry and physiology of nutrition. Intended for students of nutrition, medicine, and nursing, it usefully brings together into a single volume information that would normally have to be acquired from a study of several books, and should therefore appeal to its intended readership. It should be particularly welcomed by teachers planning integrated and multidisciplinary courses in nutritional science.

An introductory chapter provides a succinct review of the relevant biochemical and physiological principles – subjects with which I would expect most readers to be familiar but worthy of inclusion to establish the context of the book as a whole. Digestion and absorption are covered in considerable detail and subsequent chapters discuss the regulation of energy metabolism, energy requirements, lipids, proteins, vitamins, and inorganic nutrients.

Each chapter begins with a reader friendly introduction and ends with a summary, but the order in which topics are covered in each chapter is deliberately unconventional. For example, the account of the regulation of energy metabolism begins with a discussion of

the importance of the glucose:insulin ratio and continues with the energetics of exercise and diabetes mellitus; detailed descriptions of the relevant metabolic pathways come later. The introduction is sufficient, however, to support what is in effect a problem based approach, and this approach should enhance the reader's understanding and enjoyment of the essential intermediary metabolism rather than just presenting it as a topic to be assimilated without any leavening of relevance.

The chapter on vitamins begins with folate, on the basis that deficiency is common and the relation between the functions of folate and the manifestations of deficiency are well understood. Thereafter, the order is based on functional relations, rather than being alphabetical or related to water or lipid solubility, so that, for example, folate, B12, and biotin are considered together on the basis of being involved in single carbon transfers. The reader who has been brought up with conventional textbooks may, in common with this reviewer, find Brody's novel approach to his subject matter difficult to appreciate at first, but increasing familiarity led to my finding it refreshing and stimulating.

Key points in the text are illustrated by aptly chosen experimental studies. Numerous 'exercises' (essentially questions and problems that the reader is invited to consider) should test understanding and could form the basis for tutorial discussions.

The book suffers, however, from some important topics being given inadequate coverage. Although the author claims that techniques for assessing nutritional requirements and deficiencies are given especial prominence in the book (nitrogen balance being singled out in this context), the assessment of nitrogen balance occupies less than one page. Given the considerable clinical importance of this topic, this is disappointing, as is the complete omission of any reference to the biochemistry of artificial nutritional support.

Nevertheless, this is an original, well researched, and comprehensively referenced book, which should be of considerable value to students of nutrition and provide a useful source of material for anyone who teaches the subject.

W J MARSHALL

Cancer: A Molecular Approach. Edited by N Lemoine, J Neoptolemos, and T Cooke. (Pp 383; illustrated; £75). Oxford: Blackwell Scientific, 1994.

Not so long ago a wise, kindly, and highly experienced editor invited me to contribute a chapter on molecular genetics to a 'Recent Advances' series in gastroenterology. As the deadline approached (and, I guess, in common with 99% of the readership of *Gut*, modern life for me is just a series of deadlines), I became acutely conscious of a problem that must have faced generations of authors before me: my recent advances might not seem quite so recent by the time the finished product hit the bookshelves. My particular concern was that such a rapidly evolving field as molecular genetics, where I had no problem in fulfilling the editor's request to be up to the minute, might have missed out on significant advances during the incubation period from manuscript to printed page. Over the telephone, my editor was unfazed by my anxieties and said that he would permit a postscript if the cure for cancer was found while the book was in press.

Because of the pace at which one discovery follows another, a lot of recent work in molecular biology can seem dated, but does this threaten to undermine the place of such books as the present one under consideration? In this case, the answer is an emphatic 'no'. As Sir Walter Bodmer recognises in the foreword, while some aspects of the book may indeed be out of date during its gestation, this would also be true of any research field that was stagnating, and no one could say that of cancer biology. Not only should all gastroenterologists who see and treat patients with cancer have a working knowledge of basic cancer science, they should also be aware of, and indeed be receptive to, developments that find their way from the research bench to the bedside. We should all be working to develop informed awareness of the potential of genetic modification as a tool for cancer treatment. There can be few readers of this journal who would not be enriched by reading the first and last 70 pages of this book, which deal with the cellular and molecular basis of cancer with specific chapters on oncogenes and immunosuppressor genes as well as outlining the scientific basis for the revelations of the molecular genetics of inherited cancer. The last three chapters relate to the molecular basis behind cytotoxic drug treatment and radiotherapy, and the book closes with an excellent chapter on cytokines in cancer from Monson and Guillou.

Perhaps, not surprisingly, given the background of two of the editors, this book has a distinctly surgical emphasis, but many of the chapters are coauthored with colleagues from basic science, which really gives rather a nice balance. The book is largely, but not exclusively, concerned with gastrointestinal cancer and, given the fact that there are 33 authors who doubtless had to be gently (or otherwise) cajoled into producing their manuscripts fast, the book seems impressively up to date – certainly, late 1992 and, occasionally, early 1993. If you feel you can live with a book published in 1994 that is not quite at the cutting edge of, for example, colorectal cancer genetics but gives a highly readable account of the fundamentals of the molecular basis of malignancy, I would urge this book upon you.

IAN FORGACS

Consensus in Clinical Nutrition. Edited by R V Heatley, J H Green, M S Losowsky. (Pp 506; illustrated; £70.) Cambridge: Cambridge University Press, 1994.

Clinical nutrition is, par excellence, an integrative discipline – an area where, in these days of super-specialisation, a student of medicine, young or old, can be encouraged to take a whole patient approach to disease: a field in which the generalist can happily roam. Gastroenterology has maintained, more than most medical specialties, its links with general medicine – few gastroenterologists are pure specialists. For the gastroenterologist nutrition encompasses especially the digestion and absorption of food including the closely related secretory and motility responses of the intestine to nutrients.

Increasingly, however, the specialty is researching less obviously gastroenterological areas like satiety/hunger, which govern the clinically all important food intake; furthermore it needs to understand metabolic responses to food and disease if it is to take part in the provision of nutritional support therapy. The specialty is well placed to do this: endoscopic skills are often needed for

tube and gastrostomy placement, the liver and intestine are the dominant nutritional organs, the patient with the failing intestine needs artificial feeding. The gastroenterologist who ignores the effects of undernutrition can be likened to the paediatrician who ignores growth failure or the cardiologist who fails to take an interest in breathlessness. But, uncomfortably for the super-specialists, the effects of over and undernutrition impinge on every organ and system in the body and have enormous political and economic import through their effect on productivity, mortality, morbidity, and quality of life. Clinical nutrition, the subject, then must include the effects of food and nutrients on cancer and coronary heart disease epidemiology, not least the fascinating story that is emerging of the effects of mild maternal malnutrition on population diabetes, hypertension, and coronary heart disease. Add obesity and a *souçon* of alcohol and the recipe for a subject emerges that must benefit from the coming together of many disciplines.

In their celebration of the tenth year of the influential Leeds Nutrition course, Heatley, Green, and Losowsky have shown this breadth of subject, while focusing appropriately on their own prime hepatogastroenterological bias. There are chapters on obesity, eating disorders and the effects of diet on blood pressure, lipids, and lipoproteins to supplement the expected diet of artificial feeding. A book such as this cannot and does not seek to be comprehensive but it would have been good to have seen chapters on prenatal nutrition and on food and cancer epidemiology. Nevertheless, it provides an entertaining *pot pourri* of valuable reviews from among the foremost contributors in clinical nutrition and as such can be thoroughly recommended. It is a pity that Cambridge University Press was not able to keep the price below a hefty £70.

J POWELL-TUCK

Atlas of Clinical Gastroenterology (2nd ed). Edited by J J Misiewicz, A Forbes, A B Price, P J Shorvon, D R Triger, G N J Tytgate. (Pp not numbered; illustrated; £80.) London: Wolfe Publishing, 1994.

Atlases do not always seem to produce the best in reviewers. Stand up the reader who has not come across the clichés – 'coffee table book . . . a picture is worth a thousand words' – when studying an appreciation (or otherwise) of a book primarily based on pictures. I wonder if any tendency to demean atlases comes from childhood experience where, surely, a sign of the maturing intellect is a progressive increase in the ratio of words to pictures in reading material.

Nevertheless, it would seem to me to be virtually impossible to study gastroenterology from books without a comprehensive visual aid. Osler once said that seeing patients without books is to sail an uncharted sea yet to study books without seeing patients is never to go to sea at all. At least with an atlas, you begin to approach 'virtual reality'. Perhaps all clinicians should have a volume containing illustrations such as the one so splendidly presented here. Many of us, of course, do not have such a book and one of the reasons may be that, in the United Kingdom, consultant gastroenterologists do not have to take any postgraduate examinations in their specialty. As the authors suggest in the preface, among this book's potential target readership are undergraduate medical students. As clinical