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LETTERS TO THE EDITOR

Primary biliary cirrhosis and primary sclerosing cholangitis are of infectious origin!

EDITOR,—Haydon and Neuberger (*Gut* 2000;**47**:586–8) elegantly summarised the possibility that specific bacterial and viral pathogens may trigger early bile duct damage in the pathogenesis of primary biliary cirrhosis (PBC). It was concluded that a chronic infection, probably of viral origin, was driving an immune response with antimitochondrial and other autoantibodies enhancing the tissue damage in later stages of PBC. Besides detection of antibodies specific for mycobacterial antigens, such as the 55 kDa and 65–75 kDa antigens of *M gordonae*, in PBC the authors emphasised, based on studies by Mason and colleagues[1] and others, that immune responses detected by immunoblotting to retroviral proteins with homology to HIV p24 and other retroviral antigens, such as HIAP, are common in PBC, in primary sclerosing cholangitis (PSC), and in Sjögren's disease.

Recent studies propose a possible role for *Helicobacter pylori* in Sjögren's disease.[2 3] Contradictory data have appeared more recently based on a possible high relevance of anti-*Helicobacter* antibodies in saliva and sera of these patients.[4] Most recently, Fox *et al* found that patients with chronic cholangitis in Chile were commonly infected by bile tolerant new *Helicobacter* species, previously only detected in chronic liver disease in mice and other rodents, such as *H hepaticus and H bilis*.[5 6] Nilsson *et al* first reported on bile and liver samples positive for *Helicobacter* DNA by polymerase chain reaction (PCR) in nearly half of 24 patients with PBC and PSC, and later immunoblot analyses of patients with these and other chronic liver diseases.[7 8] Conflicting negative PCR results on bile were reported by Tanaka and colleagues[9] while studies in Taiwan and Korea regularly seem to detect *Helicobacter* in human bile in chronic cholestatic bile tract diseases.[10] Recently, Bulajic *et al* reported on a strong correlation between bile duct malignancies and the presence of *H pylori* DNA in bile.[11] Since bile acids, intestinal acids, and highly charged mucin components are strong inhibitors of the PCR reaction, all of these studies have to be interpreted with caution until methods to safely remove or neutralise the effect of these inhibitors in bile, bile tract, and liver biopsies have been developed. We recently reported that PCR analyses of formalin fixed paraffin embedded liver, pancreas, and bile tree samples may be a safe way to produce reproducible PCR analyses of *Helicobacter* and other potential bacterial invaders of the human bile tract.[12] Interestingly, preliminary findings in our study on experimentally infected laboratory animals with various *Helicobacter* strains suggest that these may be translocated from the stomach and the intestine to the liver, and we speculate that this may involve uptake and intracellular survival in macrophages and other professional phagocytes activated in the stomach during most *Helicobacter* infections (T Wadström *et al*, unpublished observations). The pathogenesis may then be similar to infection of the bile tree with bile tolerant and bile adapted strains of *Salmonella typhi* and other enteric organisms, known to invade the bile tree in chronic infections and in carriers, and to increase the risk of later development of primary biliary carcinoma, a disease associated with PSC in humans. Several laboratories are now focusing on development of a mouse model to study bile tract infections with these organisms. Interestingly, injection of porcine bile into the murine bile tree causes immune reactions with tissue damage, similar to PBC. It is tempting to speculate that various *Helicobacter* species and possibly other "new" bile and liver pathogens in mice, other rodents, and dogs may also invade the human bile tree and liver.[6] Further development of quantitative PCR (real time PCR and related methods) as well as immunoblot and immunohistochemistry staining methods for bile tree and liver biopsies will tell us if the report on approximately 50% *Helicobacter* infection in Swedish patients can be confirmed in studies using "backing up" diagnostic procedures. Recently, we have demonstrated morphologically intact spiral and coccoid-like forms of *Helicobacter pylori* by immunohistopathology and transmission electron microscopy (TEM) in a patient with PSC (fig 1A, B).

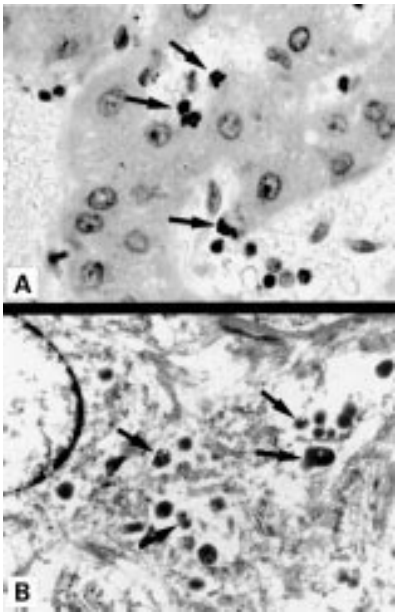

Figure 1 (A) Cluster of 3 μm Helicobacter species in primary sclerosing cholangitis damaged liver (arrows). Immunohistopathology with specific antibodies raised against H pylori.[8] Magnification ×1250. (B) Helicobacter species in liver tissue portal zone, demonstrating white energy spots, poly- P granulae (arrows). Transmission electron microscopy, magnification ×8800.

FUTURE PERSPECTIVES

The strong link between PSC and ulcerative colitis with associated malignancies in the colon and liver emphasises the importance of continuing analyses of *Helicobacter* and other new candidates which may trigger early development of the disease, and to consider antibiotic treatment studies in animal models. Isolation of a novel *Helicobacter* species from cotton top tamarins with a high incidence of ulcerative colitis-like disease supports this.[13] The prominent early immune responses to *Helicobacter* antigens in severely ill PSC and PBC patients[8] (T Wadström *et al*, unpublished observations) may imply that they will not respond to antibiotic therapy for *Helicobacter* and other pathogens when these patients develop clinical disease. However, development of sensitive immunodiagnostic tests may serve as a screening tool and permit early diagnosis of *Helicobacter* associated bile tree and liver diseases in human patients as well as in laboratory animals.

We would certainly like to add PBC and PSC to the list of infectious diseases,[14] and it seems likely that in a certain proportion of patients, *H pylori* and other *Helicobacter* species may play a role in the pathogenesis.

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Measurement of tumour necrosis factor α

EDITOR,—In their paper (*Gut* 2000;**47**:281–7), von Baehr *et al* suggest that the high sensitivity Quantikine ELISA for tumour necrosis factor α (TNF-α) is capable of

differentiating between trimeric (bioactive) TNF-α and proteolytic split products of TNF-α. Both forms are thought to be measured by the Medgenix assay. They go on to propose that this allows a measure of recently released bioactive TNF-α as opposed to an estimate of release over past hours. The authors do not include any data to substantiate such a claim.

Following discussion with R&D systems, I can confirm that they do not claim that their high sensitivity kit measures only trimeric (bioactive) TNF-α and that there are no data comparing this kit with a bioassay as they measure different things, namely immunoreactivity (mass) versus bioactivity. The apparent twofold greater level of TNF-α found using the Medgenix kit may simply reflect a calibration difference between the two kits.

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Reply

EDITOR,—Several years ago we compared different tumour necrosis factor (TNF) assays.[1] We observed a strong correlation between the bioassay and the R&D assay (r=0.88) whereas the correlation was poor (<0.3) between both assays and the Medgenix ELISA. Moreover, the kinetic studies after in vitro lipopolysaccharide stimulation showed that bioactive TNF is produced for a few hours only whereas the Medgenix TNF assay (in contrast with the R&D assay) detects TNF even 24 hours after stimulation (fig 4 in Asadullah and colleagues[1]). In addition, monoclonal antibodies recognising and neutralising TNF interact with the R&D assay but not with the Medgenix assay. Hence the differences between the assays are not simply due to differences in calibration. If sera that contained TNF immunoreactivity were fractionated into fractions less than or greater than 40 kDa (the trimer has about 51 kDa) it was observed that the Medgenix but not the R&D assay recognised low molecular weight as well high molecular weight fractions (unpublished data). In summary, there is strong evidence that the Medgenix assay recognises biologically inactive TNF split products in addition to the bioactive TNF trimer but the R&D assay does not.

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Chromosome 3p and inflammatory bowel disease

EDITOR,—We were particularly interested to read the paper of Hampe *et al* (*Gut* 2001;**48**:191–7) which provides some supportive evidence for the presence of a gene involved in susceptibility to inflammatory bowel disease on chromosome 3p. As Hampe *et al* describe, this region of interest was initially identified in a study of 186 affected sibling pairs, all resident in and indigenous to the UK.[1] Since that initial observation, subsequent genome wide scans in European and North American populations have produced inconsistent data for the chromosome 3p region. There are a number of possible explanations for the inconsistent data, all well summarised by Hampe *et al*.

We suggest that the issue of heterogeneity between populations may be pertinent to the study of the chromosome 3 locus. We noted with interest that the dataset of 353 sibling pairs studied by Hampe *et al* includes a high proportion (48%) of UK sibling pairs, together with sibling pairs from Germany (46%) and the Netherlands (6%). In view of the fact that there appears to be heterogeneity between the UK dataset and other populations in Europe concerning the chromosome 16 and 12 loci,[2 3] we would be particularly interested to know whether the data implicating chromosome 3p in Hampe's study are in fact stronger in the subset of families from the UK than those from Germany and the Netherlands. It would be of benefit in future studies to ascertain whether the chromosome 3p region does have a relatively stronger effect in the UK population than in other populations.

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Reply

EDITOR,—The point raised in the letter by Satsangi and Vermeire is very valid. There has been significant variation in the presence of linkage in different populations.[1–4] From a preliminary re-analysis of the data presented in our paper (*Gut* 2001;**48**:191–7), the hypothesis raised through Satsangi and Vermeire appears to be true: there is a stronger contribution of linkage in the UK families than in the German families to the chromosome 3p linkage with a peak multipoint LOD score of 1.0 in the UK and 0.8 in the German families (not all markers analysed). It should be noted that each subsample is somewhat subcritical for a proper linkage analysis and thus these data have to be viewed with caution.

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Indecision and irritable bowel

EDITOR,—The Guidelines for the management of the irritable bowel syndrome supplement was a commendable enterprise,[1] but with physicians tending to depend more and more on sources other than reading for their continuing education, actual guidance is also necessary, especially from what physicians such as Almy[2] and Kirsner[3] have found does and does not work. Sadly they were not not quoted. In addition, indecision and "fence sitting" has been found to be the most common stressful life situation present at the time of onset or relapse of IBS.[4] Therefore, any indecisiveness on the part of doctors about choice of treatment of IBS is likely to be picked up by their patients.

The guidelines rightly pointed out the limitations of " end organ" treatments compared with centrally directed therapies, such as hypnosis and relaxation methods. However, these are also rarely effective when a patient has a nagging personal problem at the back of his or her mind. Uncovering such doubts requires open ended questions as recommended by Almy.[2] Patients may be encouraged to make such decisions by the likelihood of remission of symptoms if they do.

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1 Jones J, Boorman J, Cann P, *et al*. Guidelines for the management of the irritable bowel syndrome. *Gut* 2000;**47**(Suppl II):ii1–ii19.
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Reply

The importance of stressful life events is of course well recognised and new evidence is constantly accumulating. In addition to the earlier papers quoted by Dr Paulley, more recent publications in *Gut*[1] indicate that resolution of chronic life stresses are important predictors of clinical outcome in irritable bowel syndrome supporting the earlier publications quoted by Dr Paulley.

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BOOK REVIEWS

What should I do? Ulcerative Colitis Health Management Guide. A Kennedy, A Robinson (Pp 80; illustrated). UK: RTFB Publishers, 2000. ISBN 9 781902 983073

A booklet little larger than the size of a two column review (10 cm×17 cm) may seem unimportant. But this is an exception. This publication is for patients with ulcerative colitis and such sources of information should be the concern of gastroenterologists. It has been written by Andrew Robinson, whose self management programme for patients with colitis lead to fewer outpatient visits, more rapid treatment of relapse, and improved patient satisfaction (*Gut* 1999; **44**:A12), and Anne Kennedy, a research fellow in primary care. They have been assisted by a professional writer and sensibly had the guide endorsed by the Plain English Campaign.

The guide consists of two booklets in a single plastic folder. Part 1 includes an overview of ulcerative colitis, tests, treatment, and surgery. Part 2 is an individual patient record. There is much to be commended, with detailed information helpfully summarised in coloured boxes ("Things to Remember"), or treatment options discussed ("Your Choice") and anecdotes from patients that give a personal appeal. Clinical views and opinions are, on the whole, well balanced and I could see this guide being a valuable contribution to patient information. Faults however qualify this commendation. The surgical subsection on ileorectal anastomosis for ulcerative colitis is wholly inappropriate and there is confusion in terminology in the section on pouch surgery. Factual errors (such as a "2% risk" of ulcerative colitis in offspring, or "5-mercaptopurine") and statements such as "immunosuppressants may make your baby very small and can lead to abnormalities" are simply misleading. Indeed the whole section on pregnancy is poor, with two anecdotes from patients advising cutting down or stopping maintenance therapy. It was surprising that there was no information for adolescents, or on osteoporosis, and little mention about the dilemmas of coexisting irritable bowel syndrome or the implications of differentiating ulcerative colitis from Crohn's colitis. A brief mention of new therapies on the horizon would have suited the aim of the book, if only to highlight the importance of clinical and basic science research, which were simply ignored.

The patient record booklet is a good idea but constructed in a bizarre manner: only three pages for clinic visits but four sections for documenting "usual treatment when well" and five boxes for details on "what to do in the event of a relapse"! A 2 cm space is allotted for recording the results of monitoring steroid or azathioprine therapy when a whole record page to document the dates and results of blood monitoring would have been helpful bearing in mind that treatment with azathioprine often extends for several years. It is this sort of detail, along with the errors in the main text, that gives an impression of clinical inexperience.

Nevertheless, these points are correctable and if asked by a patient I would broadly recommend the guide. There is nothing else like it on the market and it gives far more useful information than can be readily gleaned from the Internet or from pharmaceutical sponsored freebies. I hope that the authors will stand by their commitment to update the guide every two years. This means that they should be working on the 2001 edition now.

S P L TRAVIS

Development of the Gastrointestinal Tract. Edited by I R Sanderson, W A Walker (Pp 324; illustrated). Canada: BC Decker Inc, 2000. ISBN 1 55009 081 X.

When I was a fellow with Allan Walker 15 years ago, gut development was a topic of interest to a handful of researchers worldwide. A classic review by Grand, Watkins, and Torti published in *Gastroenterology* in 1976, and Koldovsky's monograph *Development of the Functions of the Small Intestine in Mammals and Man* in 1969 brought together much of what was then known about the ontogeny of the human gut. Developmental biologists were beginning to recognise the opportunities offered by this rapidly differentiating organ to understand the interactions of genetic endowment and environmental influences in early life. The focus of much research was on the process of adaptation to milk feeding. With the survival of ever more preterm infants, the function of the immature gut and its capacity to deal with enteral feeds prematurely were questions of increasing practical concern.

I had the grand idea at that time to produce a short book bringing the field together. But I quickly realised that not only was it growing too fast but that a full understanding of gut development and function also required an understanding of the composition and properties of human milk and the metabolism of the newborn. The developing gastrointestinal tract and lactating mammary gland are complementary organs, jointly involved in the transfer of nutrients and other substances from mother to infant. Until weaning the neonate is an extra-gestate fetus, and breast and gut are analogous to the uterine-placental interface.

This book goes a long way to recognising this. Each chapter (essentially a stand alone review) is written by a leading figure or group expert in its field. Together they cover the major aspects of gut development and function but apart from a short preface there is no overview or attempt to synthesise the book's contents. It would be impossible for one author to write this book. The impact of molecular biology has moved the subject from an essentially descriptive science, with some experimental work in vivo, to the level of the cell and gene. This has shifted it away from the womb, breast, or incubator and into the laboratory. This book is a valuable starting point for students or researchers wishing to get up to date with the basic biology of human gut development but it will be of little interest to the practising neonatologist struggling to define rational approaches to feeding the preterm neonate.

Medicine is fast becoming a major branch of biology, concerned with the application, often experimentally, of novel therapies based on insights and new understanding of biological processes. However, at a time when the biological sciences are advancing so rapidly, and manipulation of genes within cells, including those of the embryo, is possible, the gap between the worlds of medicine and biology is widening rather than narrowing.

The last century saw the integration of medicine and science, and a determination to base the practice of the former on the latter. At the beginning of this century we are struggling to define a core of knowledge, skills, and ideas to teach our medical students. The wide scope of what we currently regard as the province of medicine now includes sociology, psychology, epidemiology, etc, and the basic sciences have been squeezed. We may be making a mistake in failing to equip medical students and young doctors with a firm understanding of the "new biology", embracing genetics, molecular medicine, and developmental biology. This book deals with these things, and although its subject is a small part of the totality of human biology, it is dealt with in depth by recognised leaders. Ian Sanderson and Allan Walker must be congratulated for bringing their research together.

Development of the Gastrointestinal Tract is also provided as a CD-ROM but this offers little more than the facility to read it on screen. It has no search tools, nor is it possible to cut and paste sections (for those wishing to produce a review article overnight). However, the opportunity to print out chapters will abolish the tedium of photocopying, and also preserve the spine of this handsome and well produced book.

L WEAVER

Pathology of the Esophagus. K Takubo (Pp 299; illustrated). Japan: Educa, 2000. ISBN 4 87006 011 6.

While the oesophagus has provided much interest to physicians and surgeons, particularly since the advent of endoscopy, manometry, and pH monitoring, to many pathologists it remained a muscular tube of relative pathological disinterest. Perhaps compared with the stomach and the intestines there is a relative paucity of interesting pathological conditions to study. Barrett's oesophagus has certainly changed much of that perspective and the fact that entire books can now be devoted to the study of the pathology of the oesophagus serves to demonstrate an ever widening spectrum of pathological interest in the organ. This volume represents the first English translation of the second edition of this book, previously published in Japanese only. Dr Takubo's book follows the excellent, but now time expired, efforts of Drs Enterline and Thompson in producing a comprehensive pathological survey of the oesophagus. This book is certainly all inclusive and most comprehensive. It is quite beautifully illustrated, mainly in colour, and includes diverse pathological investigations such as cytology, immunohistochemistry, and electron microscopy to good effect. Most importantly, it is clinically relevant and the use of numerous endoscopic images will be of interest not only to practising endoscopists but also to pathologists and researchers.

Dr Takubo has developed an international reputation for his work in various aspects of the pathology of the oesophagus and his efforts in producing this book are to be applauded. Differences in the pathological assessment of tumours of the gut between

Western and Japanese pathologists have recently been highlighted. In this book, inevitably favouring Japanese methodology, such differences are perhaps less marked, for the oesophagus at least, than other areas of the gut and these do not cause particular concern for a Western pathologist. The only slight irritations of this book are the references which are all lumped together at the end and I found referring to these a little labourious. Otherwise, I have no complaints. All those with a keen interest in diseases of the oesophagus will find this well written, well illustrated, and extremely well researched and referenced textbook an informed read and an invaluable source of reference. I thoroughly recommend it.

N A SHEPHERD

The *Helicobacter pylori* Handbook, 2nd edn. RV Heatley (Pp 64; illustrated; £12.95). UK: Blackwell Science Ltd, 1998. ISBN 0-632-05176-0.

In his preface, Dr Heatley states "Having been involved in the production of one of the established texts on this subject, and also having contributed to others, I have written this book with the generalist in mind. It is intended mainly for those in primary care but, hopefully will also be of value to many in other disciplines including hospital specialities not principally involved with *H pylori* management, including those in care of the elderly patients, paediatrics, general bacteriology, chemical pathology, nuclear medicine and pharmacy, as well as others." To what extent do I think Dr Heatley has succeeded in his aims in producing a book suitable for general practitioners and other non-gastroenterologists?

This is actually the second edition of a book originally published in 1995 and has been extensively updated. The book is only 64 pages in length with some 22 figures and 24 tables. It is divided into four chapters entitled: (1) *Helicobacter pylori* the organism; (2) *Helicobacter pylori*: the clinical problem: (3) Management of *Helicobacter pylori* infection, and (4) Managing dyspeptic conditions in the *H pylori* era. Considering the fact that thousands of original papers have been written in the 16 or so years since Barry Marshall and colleagues first "discovered" the bacteria, I think the author has summarised the relevant literature very well indeed. However, there are no references or lists of suggested reading, and I think this is a weakness.

I thought the first three chapters were excellent but was frankly a bit disappointed with the fourth and final chapter dealing with the management of dyspeptic conditions. In this era of "evidence based medicine" perhaps the author is correct to be so critical of, for example, the evidence that *Helicobacter pylori* is indeed a class I carcinogen, as suggested by the WHO or the Maastricht Consensus report's recommendations on the management of *Helicobacter pylori* positive NUD. However, in the real world most NUD patients if told they have a bug in their stomach which if left might have a 1:4 chance of later causing a peptic ulcer or a 1:100 chance of turning into stomach cancer, will opt for eradication therapy. Textbooks in such a fast moving field as *Helicobacter pylori* are in danger of being out of date almost as soon as they are published. Perhaps a short term compromise would be for the interested general practitioner to first read Dr Heatley's little book to "get up to speed" on the subject and then look at the relevant clinical sections of the excellent supplement of *Gut* reporting on the 5th Education Training Workshop in *Helicobacter pylori* held in Bologna in 1998. They would find NJ Talley's article entitled "How should *Helicobacter pylori* positive dyspeptic patients be managed?" particularly useful to balance out the rather negative views expressed by Dr Heatley in his book.

G D BELL

Cryptosporidiosis and Microsporidiosis. Edited by F Petry (Contributions to Microbiology, vol 6), (Pp 268; illustrated). Switzerland: Karger, 2000. ISBN 3805570503.

There is a great need to raise the profile of parasitic diarrhoeal disease, and this book serves the cause well. World wide the prevalence of *Cryptosporidium* among individuals with diarrhoea is approximately 5%. The common notion that cryptosporidiosis is purely a disease of the immunocompromised is wrong. Since the well publicised Milwaukee outbreak in the USA, affecting 420 000 individuals, large waterborne outbreaks of cryptosporidiosis repeatedly occur at an alarming rate despite "state of the art" water treatment facilities, illustrated by two examples. In 1998, Sydney water supplies became heavily contaminated with *Cryptosporidium* leading to a full scale enquiry by the Australian government. A large outbreak occurred in London and Hertfordshire in 1997, affecting a population of half a million water users, resulting in the issue of a public notice to boil drinking water. Largely as a consequence, the government recently commissioned the Bouchier report on *Cryptosporidium* and water supplies which emphasised the need for better outbreak investigation in the future (www.dwi.detr.gov.uk/pubs/bouchier).

In the developing world, parasitic disease contributes heavily to the burden of diarrhoeal disease. Malnourished children are especially at risk of increased morbidity and mortality, both HIV negative and positive, from cryptosporidiosis and microsporidiosis. Twenty to forty per cent of HIV positive individuals in the developing world develop cryptosporidiosis or microsporidiosis. In addition to slowing retroviral progression, HAART has emerged as the best treatment for opportunistic infections. Sadly few people with AIDS in the developing world have access to antiretroviral therapy.

For these reasons *Cryptosporidiosis and Microsporidiosis* is a timely reminder of the importance of these infections providing an authoritative up to date summary of the many recent developments in the field. Franz Petry, the editor, has done well to bring together a panel of authors with an international reputation in their subjects.

Tzipori and Widmer as well as Morgan and colleagues put forward evidence for two distinct genotypes of *C parvum*: a "human-type" which may infect only humans or immunocompromised animals, and an "animal-type" which may infect both humans and a range of animals. This has important applications in the molecular epidemiological characterisation of samples collected during waterborne outbreaks. For example, almost all isolates tested from the London/Hertfordshire waterborne outbreak were of human origin, suggesting failure of water treatment. Petry summarises the diagnostic approaches for the identification of *C parvum* infection. Particularly of interest is the recent development of ELISA for the detection of serum antibodies to *C parvum* immunodominant antigens. The technique appears to be both more sensitive and specific than ELISA using crude oocyst antigen but has yet to be fully evaluated. Farthing emphasises the clinical importance of childhood infection in the developing world and flags up new therapeutic agents, including nitazoxanide, which has good efficacy and is likely to be an affordable option in the tropics. McDonald and coworkers review developments in our knowledge of the host immune response to *Cryptosporidium* highlighting the role of T cell mediated responses. Work by the author has revealed the central role of interferon γ production by intraepithelial lymphocytes in the control of infection. Strong and Nelson tackle new developments in gene discovery of *C parvum*. Using a combination of characterisation of expressed sequence tags and the use of "HAPPY" mapping technology, approximately 30% of the *C parvum* genome has been surveyed. A full scale genome mapping project is needed to allow comparison with the better characterised related parasites *Toxoplasma* and *Plasmodium*.

Topics relating to microsporidiosis are similarly covered. Weber and colleagues review diagnostic methods although information on the relevance of this infection in the tropics, where most disease now occurs, is limited. Our knowledge of the immune response to *Microsporidium* is relatively limited but as with *Cryptosporidium*, Didier points out the importance of interferon γ mediated T cell responses in control of infection. Deplazes describes the epidemiology of microsporidial infection. Interestingly, several different genotypes of *Enterocytozoon bieneusi* have been identified but their phenotypic difference remains uncertain.

This book is an invaluable resource for workers with an interest in the field, my only regret, particularly for research students, is its hefty price.

R C G POLLOK

Small Bowel Disorders. Edited by R N Ratnaike (Pp 640; illustrated; £125.00). UK: Arnold, 2000. ISBN 0 340 76008 7.

This is a book that covers not only small intestinal disorders but also the anatomy and physiology of the normal small bowel. Absorption of nutrients is presented in a very detailed way. Although these aspects are very well dealt with, it is somewhat curious that in a book entitled *Small Bowel Disorders* almost 50% of the text is related to the anatomy and physiology of the small intestine. On the other hand, chapters on symptoms and signs of small intestinal diseases and those on the use of the most important diagnostic tests will be of great help for clinicians. I was favourably impressed by the quality of the very interesting figures.

The book is particularly aimed towards tropical conditions affecting the small bowel. Many pages are specifically dedicated to infectious diseases and these are always kept in mind in the chapters describing diagnostic tests. In contrast, some non-infectious conditions are less extensively described. Only a few pages are dedicated to small bowel bacterial overgrowth, vascular disorders, radiation enteritis, and graft versus host disease, conditions that are relevant in the practice of

gastroenterology in the western world. Nevertheless, the chapter on coeliac disease provides some practical information on following a gluten free diet that will be very useful not only for gastroenterologists but also for general practitioners and dieticians dealing with patients affected by coeliac disease. Patients too may find this chapter of great use. The chapter on Crohn's disease is up to date and interesting. Disappointingly, the use of ultrasonography in both the diagnosis and follow up of this condition is only briefly described.

The references are somewhat disappointing. Although in some chapters they are up to date, in others most date back to the 80s.

In conclusion, this book will be useful for clinicians with a specific interest in the small intestine. Otherwise, however, gastroenterologists may not find this book much more useful than the chapters dedicated to the small bowel in the major gastroenterology textbooks. Moreover, gastroenterologists working in tertiary referral centres for the small bowel may find some chapters out of date and not of much use for the most difficult decisions. Hence clinicians practising in the tropics or dealing with patients travelling in less industrialised countries are those that will benefit most.

F BIAGO

NOTES

Sir Francis Avery Jones British Society of Gastroenterology Research Award 2002

Applications are invited by the Education Committee of the British Society of Gastroenterology who will recommend to Council the recipient of the 2002 Award. Applications (TWENTY COPIES) should include:

- A manuscript (2 A4 pages ONLY) describing the work conducted
- A bibliography of relevant personal publications
- An outline of the proposed content of the lecture, including title
- A written statement confirming that all or a substantial part of the work has been personally conducted in the UK or Eire.

Entrants must be 40 years or less on 31 December 2001 but need not be a member of the Society. The recipient will be required to deliver a 30 minute lecture at the Annual meeting of the Society in Birmingham in March 2002. Applications (TWENTY COPIES) should be made to the Honorary Secretary, British Society of Gastroenterology, 3 St Andrews Place, London NW1 4LB by 1 December 2001.

Hopkins Endscopy Prize 2002

Applications are invited by the Endoscopy Committee of the British Society of Gastroenterology who will recommend to Council the recipient of the 2002 Award. Applications (TEN COPIES) should include:

- A manuscript (2 A4 pages ONLY) describing the work conducted
- A bibliography of relevant personal publications
- An outline of the proposed content of the lecture, including title
- A written statement confirming that all or a substantial part of the work has been personally conducted in the UK or Eire.

An applicant need not be a member of the Society. The recipient will be required to deliver a 20 minute lecture at the Annual meeting of the Society in Glasgow in March 2002. Applications (TEN COPIES) should be made to the Honorary Secretary, British Society of Gastroenterology, 3 St Andrews Place, London NW1 4LB by 1 December 2001.

Falk Symposium No 123: VI International Symposium on Inflammatory Bowel Diseases

This Falk Symposium will be held on 3–5 September 2001 in Istanbul, Turkey. Further information: Falk Foundation e.V. - Congress Division, Leinenweberstr. 5, PO Box 6529, D-79041 Freiburg, Germany. Tel: +49 761 15 14 0; fax: +49 761 15 14 359; email: symposia@falkfoundation.de

Falk Symposium No 124: Medical Imaging in Gastroenterology and Hepatology

This Falk Symposium will be held on 28–29 September 2001 in Hannover, Germany. Further information: see Falk Symposium No 123 above.

9th Asian Conference on Diarrheal Diseases and Nutrition

This meeting will be held on 28–30 September 2001 in New Delhi, India. The organisers hope the meeting will promote meaningful and effective collaboration among individuals/institutions towards control of the major health problems in Asia, particularly those affecting women and children. Further information: Professor M K Bhan, Coordinator, Centre for Diarrheal Disease and Nutrition Research, All India Institute of Medical Sciences, New Delhi. Tel: +91 11 6963822; fax: +91 11 6862662; email: ascodd2001@rediffmail.com

VI Congress of the International Xenotransplantation Association

This congress will be held on 29 September to 3 October 2001 in Chicago, USA. Further information: Felicissimo & Associates Inc., 205 Viger Avenue West, Suite 201, Montreal, Quebec, Canada H2Z 1G2. Tel: +1 514 874 1998; fax: +1 514 874 1580; email: info@ixa2001chicago.com; website: www.ixa2001chicago.com

Falk Symposium No 125: Cytokines in Liver Injury and Repair

This Falk Symposium will be held on 30 September to 1 October 2001 in Hannover, Germany. Further information: see Falk Symposium No 123 above.

Falk Symposium No 126: Hepatocyte Transplantation

This Falk Symposium will be held on 2–3 October 2001 in Hannover, Germany. Further information: see Falk Symposium No 123 above.

EASL Single Topic Conference

The EASL Single Topic Conference "Liver fibrosis: from basic science to clinical targets" will be held on 12–13 October 2001 in Florence, Italy. Organisers: Massimo Pinzani (University of Florence) and Detlef Schuppan (University of Erlangen-Nuernberg). The aim of the conference is to provide the latest information on this key area of hepatology and to translate the current knowledge into clinical terms. It is directed at both the expert in the field and the general hepatologist. Further information: Massimo Pinzani, Dipartimento di Medicina Interna, Università degli Studi di Firenze, Viale GB Morgagni, 85, I-50134 Firenze, Italy. Tel: +39 055 4277845; fax: +44 39 055 417123; email: m.pinzani@dfc.unifi.it

Lecture Course in Coloproctology

This course will be held on 15–17 October 2001 in Harrow, UK. Professor Russell Stitz from Australia will be the Sir Alan Parks Visiting Professor and, for the first time, there will be a Sir Francis Avery Jones Visiting Professor, which will be Professor Paul Rutgeerts from Belgium. Further information: The Administrator, St Mark's Academic Institute, St Mark's Hospital, Northwick Park, Harrow, Middx, HA1 3UJ, UK. Tel: +44 (0)20 8235 4046/8; fax: +44 (0)20 8235 4039; email: stmarks@ic.ac.uk; website: www.stmarkshospital.org.uk

International Symposium on Hyperammonemia, Liver Failure and Hepatic Encephalopathy

This symposium will be held on 20–22 October 2001 in Valencia, Spain. Further information: Cátedra Santiago Grisolía, Fundación Museu de les Ciències Príncipe Felipe, Ciutat de les Arts i les Ciències, Avda. Instituto Obrero, s/n, 46013 Valencia, Spain. Tel: +34 96 197 44 66; fax: +34 96 197 44 70; email: catedrasg@cac.es.

ICGH-2: The Second Iranian Congress of Gastroenterology and Hepatology

The main Iranian meeting of gastroenterologists and researchers in this field will be held on 27 October to 1 November 2001 in Tehran, Iran. Further information: Dr Shahin Merat, Digestive Diseases Research Center, Shariati Hospital, N. Kargar Street, Tehran 14114, Iran. Tel: +98 911 717 3966; fax: +98 21 225 3635; email: merat@ams.ac.ir; website: www.ams.ac.ir/icgh.

Falk Symposium No 127: Autoimmune Diseases in Pediatric Gastroenterology

This Falk Symposium will be held on 8–9 November 2001 in Basel, Switzerland. Further information: see Falk Symposium No 123 above.