Role of multi-detector row CT angiography in the management of gastric fundal varices

We read with great interest the article by Willmann et al (Gut 2003;52:886–92) regarding the superiority of multi-detector row CT (MDCT) angiography over endoscopic ultrasound for the detection and characterisation of submucosal gastric fundal varices (FV). We strongly agree that MDCT angiography provides excellent visualisation of FV, as well as afferent and efferent veins, and that it provides valuable anatomical information for deciding the therapeutic strategies for FV (fig 1A, B).1

Iwase and colleagues2 divided FV into localised and diffuse types using MDCT angiography. This classification resembles the findings obtained by investigation of resected or autopsied stomachs.3 According to Iwase and colleagues,2 diffuse FV are more difficult to obliterate with cyanoacrylate than localised FV. Diffuse FV may be better treated with balloon occluded retrograde transvenous obliteration (B-RTO).2

Although FV with a high risk of bleeding have not yet been fully clarified, they are defined according to the criteria proposed by Kim and colleagues4 in Japan. Because high risk FV are easily detected endoscopically, it is not necessary to distinguish FV from perigastric collateral veins by MDCT angiography.

MDCT angiography can also provide useful information for evaluation of the effect of treatment of FV. Obliteration of the afferent veins as well as the actual varices is important to prevent recurrence.5 If these vessels are not visualised by MDCT angiography after therapy, FV will rarely recur.6

With regard to the treatment of FV reported by the authors, we also have some comments. Firstly, they treated a patient by transjugular intrahepatic portosystemic shunting (TIPS). However, as the patient had a type 2 portal haemodynamic pattern, as classified by Kanagawa and colleagues,7 B-RTO would have been preferable if his portal pressure gradient was less than 12 mm Hg.7

Secondly, we would like to ask the authors how they treated the patient presented in fig 3? As the varices seem to be so-called GOV2, as classified by Sarin and Kumar,7 they could be treated by endoscopic sclerotherapy with the oesophageal varices.

A Matsumoto, Y Sugano, M Yasuda, K Takimoto
Takeda General Hospital, 28-1 Ishida Mariminadi-cho, Fushimi, Kyoto, Japan
Correspondence to: Dr A Matsumoto; marsh@hkg.odn.ne.jp

References

Figure 1 (A) Multi-detector row CT (MDCT) angiograms before treatment for submucosal gastric fundal varices. (B) Balloon occluded retrograde transcatheter varicealogram during balloon occluded retrograde transvenous obliteration, which agrees with the MDCT angiogram. PGV, posterior gastric vein; FV, submucosal gastric fundal varices; GRS, gastrorenal shunt.


Authors’ reply
We thank Dr Matsumoto et al for their interest in our work.

Balloon occluded retrograde transvenous obliteration (B-RTO) is a recently described interventional radiology technique which allows effective treatment of gastric varices, similar to but less invasive than transjugular intrahepatic portosystemic shunt stent (TIPS).8 It has recently been shown that B-RTO of gastric varices can even be performed through the left inferior phrenic vein which represents the efferent vein of gastric varices.9 There is no doubt that B-RTO through the left inferior phrenic vein would have been an option for the treatment of the patient shown in fig 2 of our article (Gut 2003;52:886–92). However, since the portal venous pressure gradient in this particular patient was 28 mm Hg, we preferred to place a 10 mm diameter TIPSS in this particular patient.

The patient illustrated by fig 3 in our study (Gut 2003;52:886–92) was classified as having gastro-oesophageal varices type 2 (GOV-2), according to the endoscopic classification proposed by Sarin and Kumar.7 This patient underwent endoscopic sclerotherapy.

J K Willmann, D Weishaupt, T Böhm, T Pfammatter
Institute of Diagnostic Radiology, University Hospital, Zurich, Switzerland
P Bauerfeind
Division of Gastroenterology, University Hospital, Zurich, Switzerland
Correspondence to: Dr D Weishaupt, Institute of Diagnostic Radiology, University Hospital, Rämistrasse 100, 8091 Zurich, Switzerland; dominik.weishaupt@dnr.usz.ch

References
Primary antiphospholipid syndrome as a new cause of autoimmune pancreatitis

I read with interest the article by Kamisawa et al regarding the pathology of autoimmune pancreatitis (Gut 2003;52:683–7). The cause of a significant proportion of cases of acute pancreatitis remains uncertain. I would like to describe a case of acute pancreatitis associated with antiphospholipid syndrome and to highlight another potentially important cause of autoimmune pancreatitis which I believe has not been previously described.

Case report

A 30 year old woman was admitted twice in the space of three months with acute pancreatitis. She had a past medical history of anxiety and occasional migraines, for which she took alprazolam and propranolol, respectively. She had suffered two miscarriages and had one healthy child. She drank 3 units of alcohol per day. She was otherwise well and had no history of musculoskeletal problems.

On both occasions her amylase level was significantly elevated (787 and 364, respectively). Ultrasonography and computed tomography of her abdomen were carried out each time and demonstrated a diffusely swollen pancreas consistent with acute pancreatitis, but with no evidence of gall stones or biliary duct dilatation.

Liver function tests were all normal with the exception of a slightly elevated gamma glutamyl transferase level. Glucose, lipids, thyroid stimulating hormone, calcium, and clotting (international normalised ratio) and activated partial thromboplastin time were all normal. Full blood count was normal except for a neutrophilia during her acute illness. Her erythrocyte sedimentation rate was raised at 78. Urine microscopy and urinary protein excretion were both normal. On her second admission to hospital she had four generalised seizures and magnetic resonance imaging showed cortical vein thrombosis with associated venous infarction. Subsequent investigation revealed a strongly positive antinuclear antibody (1 in 640) but her extractable nuclear antigens and anti-Smith antibodies were negative, as was her antineutrophil cytoplasmic autoantibodies and antineutrophil cytoplasmic and antismooth muscle antibodies. Her thrombophilia screen was negative but her IgG antiphospholipid antibody titre was positive at 22.3 (0–5.5).

A diagnosis of antiphospholipid syndrome was made. She was treated with heparin and warfarin and subsequently made a good recovery.

Discussion

Primary antiphospholipid syndrome is defined as the presence of antiphospholipid antibodies (e.g. anticardiolipin or anticyclic citrullinated peptide antibodies) in association with thrombosis or recurrent miscarriage, but in the absence of an associated connective tissue disorder such as systemic lupus erythematosus (SLE).1 SLE has previously been described as an unusual cause of acute autoimmune pancreatitis. In the literature there are a small number of cases of pancreatitis in association with SLE and antiphospholipid syndrome (SLE).2

A single case of pancreatitis associated with lupus anticoagulant but not anticyclic citrullinated peptide antibodies has also been described.3 However, to my knowledge this is the first reported case of primary antiphospholipid syndrome with anticyclic citrullinated peptide antibodies causing acute pancreatitis.

In the antiphospholipid syndrome, vascular occlusion is due to thromboembolism whereas in SLE the primary abnormality is vasculitis. In a single post mortem case of pancreatitis due to antiphospholipid syndrome associated with SLE, the pathological abnormality was vascular occlusion due to thromboembolism.4 Oral anticoagulation rather than steroids is therefore the treatment of choice for antiphospholipid syndrome.

The patient described fulfills the criteria for a diagnosis of primary antiphospholipid syndrome. While there is no historical proof that her pancreatitis was due to vasculocclusive thromboembolism, several facts make this the likely explanation. The recurrent episodes in the absence of another cause, the proven cerebral thromboembolism at the time of her second attack of pancreatitis, and her positive antiphospholipid antibodies are highly suggestive that thromboembolism of her pancreatic blood vessels was indeed the cause of her pancreatitis.

I suggest that the investigation of patients with idiopathic pancreatitis should include checking their antiphospholipid antibodies.

H L Spencer

References


Author’s reply

Autoimmune pancreatitis is a recently described clinical entity in which autoimmune mechanisms are involved in the pathogenesis. As Etemad and colleagues1 described that autoimmunity was one of six risk factors of chronic pancreatitis, autoimmune pancreatitis is not acute but chronic pancreatitis. Patients with autoimmune pancreatitis rarely showed acute attacks of pancreatitis or marked elevation of serum amylase.2 Although the pancreas of autoimmune pancreatitis is swollen similar to acute pancreatitis on ultrasound and computed tomography, it is induced by dense lymphoplasmacytic infiltration with fibrosis. Obliterated phlebitis throughout the pancreas is one of the characteristic pathological findings of autoimmune pancreatitis. The lumen of the vein was filled with prominent cellular infiltrates and fibrosis. Venous occlusion was not due to thromboembolism but to phlebitis. Although the role of obliterated phlebitis is unknown in the pathogenesis of autoimmune pancreatitis, many IgG4 positive plasma cells, which might be closely related to pathogenesis, were observed in the obliterated veins. Signs of thromboses were not observed in any organs of our patients with autoimmune pancreatitis. We think that autoimmune pancreatitis is quite different from the pancreatitis reported by Spencer.

T Kamisawa, N Funato, A Okamoto

Correspondence to: T Kamisawa, Department of Internal Medicine, Tokyo Metropolitan Komagome Hospital, 3-18-22 Honkomagome, Bunkyo-ku, Tokyo 113-8677, Japan; kamisawa-k@komagome-hospital.bunkyo.tokyo.jp

www.gutjnl.com

Treatment of interferon non-responsive chronic hepatitis C with triple therapy with interferon, ribavirin, and amantidine can be encouraging

Patients with hepatitis C virus infection who do not respond to treatment with interferon alone or its combination with ribavirin present a serious clinical challenge and there is no clear choice for treatment in these individuals.4 Earlier studies with antiviral amantidine, which has been used in influenza, had shown promising results.5 Now, Adinolfi et al (Gut 2005;54:682–703) have shown 68% end of treatment response with induction therapy using daily interferon for four weeks (and then three injections weekly) in combination with ribavirin and amantidine hydrochloride.

We had used interferon in doses of 3 milliion units given subcutaneously thrice weekly with ribavirin 800–1200 mg/day and amantidine hydrochloride 100 mg orally twice a day in a small group of chronic hepatitis C patients who had not responded to a combination of interferon and ribavirin. We found a 50% end of treatment response after a treatment period of 12 months (see table 1). Half of the patients showed no effect on alanine aminotransferase or hepatitis C virus RNA, and in these patients treatment was discontinued after three months.

There are reports of good results with the use of amantidine in combination with interferon.6 Therefore, although the mechanism of action of amantidine in this setting is unclear, it is becoming obvious that there is an encouraging situation for these hard to treat patients and there may be light at the end of the tunnel. Due to lack of major sponsorship for amantidine from a large
pharmaceutical company however, it may take a while before this happens.

N Khokhar

Correspondence to: Professor N Khokhar, Division of Gastroenterology, Department of Medicine, Shifa international Hospital and Shifa College of Medicine, Islamabad, Pakistan; drnkhokhar@yahoo.com

Table 1 Patients treated with interferon, ribavirin, and amantidine

<table>
<thead>
<tr>
<th>No</th>
<th>Age (y)</th>
<th>Sex</th>
<th>Duration of treatment (months)</th>
<th>HCV RNA level (millions)</th>
<th>HCV serotype</th>
<th>Biopsy grade/stage</th>
<th>End of treatment response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>42</td>
<td>M</td>
<td>12</td>
<td>3</td>
<td>2/3</td>
<td>Clear*</td>
<td>No response</td>
</tr>
<tr>
<td>2</td>
<td>50</td>
<td>M</td>
<td>3</td>
<td>3.0</td>
<td>Untypable</td>
<td>3/4</td>
<td>No response</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>M</td>
<td>12</td>
<td>0.8</td>
<td>1/3</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>4</td>
<td>52</td>
<td>F</td>
<td>3</td>
<td>6.0</td>
<td>3</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>5</td>
<td>61</td>
<td>F</td>
<td>3</td>
<td>1/0</td>
<td>3/3</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>6</td>
<td>37</td>
<td>M</td>
<td>12</td>
<td>2.2</td>
<td>3/2</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>7</td>
<td>36</td>
<td>M</td>
<td>12</td>
<td>1.3</td>
<td>1/3</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>8</td>
<td>50</td>
<td>F</td>
<td>3</td>
<td>0.2</td>
<td>3/3</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>9</td>
<td>42</td>
<td>M</td>
<td>12</td>
<td>0.48</td>
<td>1/1</td>
<td>Clear</td>
<td>No response</td>
</tr>
<tr>
<td>10</td>
<td>51</td>
<td>M</td>
<td>3</td>
<td>5.3</td>
<td>3/2</td>
<td>Clear</td>
<td>No response</td>
</tr>
</tbody>
</table>

*Normal alanine aminotransferase and undetectable HCV C virus (HCV) RNA.

Who should perform endoscopic procedures?

We read with great interest the report of procedures Who should perform endoscopic medical practice in which nurses might barbers once performed surgery. This could caesarean section and appendicectomy, and be learnt by anyone, medical or non-medical, perform liver biopsies, abdominal ultrasound that specifically trained nurses could also our residents and trainees. We are certain fully perform endoscopic procedures. experiences, some of them mentioned in this tion compared with medical staff. Many that had no significant effect on diagnostic yield, patient discomfort, or patient satisfac-
tion with specific endoscopy trained nurses.

Several studies indicate the value of circulating tumour marker evaluation as a simple, sensitive, and reliable test facilitating the differential diagnosis between chronic pancreatitis and cancer.12 To improve the effectiveness of serological diagnosis of patients with pancreatic cancer, differ-
tent tumour markers have been assessed, including CEA, CA 242, CA 95, and CA 72-4.13 However, the sensitivity and speci-
licity of these markers appeared to be insufficient for differentiation of pancreatic carcinoma from chronic pancreatitis. In 1996, CAM 17-1 was described as a new useful diagnostic marker in pancreatic carcinoma. It showed a sensitivity similar to that of CA 19-9 but higher specificity, giving only 10% false positive results in patients with chronic pancreatitis.

Tissue polypeptide specific antigen (TPS) is a different type of antigen that does not correlate with tumour mass but reflects tumour proliferative activity.4 Our study revealed that elevated levels of TPS detected preoperatively 100% of patients with pan-
creatic carcinoma. The introduction of 200 U/l as a decision criterion for TPS level allowed an increase in the specificity of this marker to 98% and eliminated all but 2% of the false positive results in patients with chronic pancreatitis. Moreover, TPS is useful for detection of the early stages of clinical advancement of pancreatic carci-
noma.

It seems that measurement of TPS, using 200 U/l as the cut off value, should facilitate more precise discrimination between the early stages of pancreatic carcinoma and chronic pancreatitis.

A Harlazinska-Szmyrka, M Strutyńska-Karpinska

Department of Clinical Immunology, Wroclaw Medical University, Mikulczyca-Rodeckiego, Street 7, Wroclaw 50-348, Poland

Correspondence to: Professor A Harlazinska-Szmyrka; immuno@immuno.am.wroc.pl

References


The diagnostic dilemmas in discrimination between pancreatic carcinoma and chronic pancreatitis

Early diagnosis to distinguish between malignant pancreatic tumours and chronic pan-
creatitis is still difficult, despite significant progress in imaging techniques. Moreover, patients with chronic pancreatitis have a higher risk of pancreatic cancer development.

The study of Malka et al (Gut 2002;51:849-52) clearly confirms these difficulties, inde-
dependently of rigorous selection criteria of patients with chronic pancreatitis. To exclude the possibility that chronic pancreatitis may be caused by early potentially premalignant lesions, the authors eliminated from their investigations even patients with chronic pancreatitis in whom pancreatic cancer was recognized during the first two years of follow up.

Several studies indicate the value of circulating tumour marker evaluation as a simple, sensitive, and reliable test facilitating the differential diagnosis between chronic pancreatitis and cancer.12 To improve the effectiveness of serological diagnosis of patients with pancreatic cancer, different tumour markers have been assessed, including CEA, CA 242, CA 95, and CA 72-4.13 However, the sensitivity and specificity of these markers appeared to be insufficient for differentiation of pancreatic carcinoma from chronic pancreatitis. In 1996, CAM 17-1 was described as a new useful diagnostic marker in pancreatic carcinoma. It showed a sensitivity similar to that of CA 19-9 but higher specificity, giving only 10% false positive results in patients with chronic pancreatitis.

Tissue polypeptide specific antigen (TPS) is a different type of antigen that does not correlate with tumour mass but reflects tumour proliferative activity.4 Our study revealed that elevated levels of TPS detected preoperatively 100% of patients with pancreatic carcinoma. The introduction of 200 U/l as a decision criterion for TPS level allowed an increase in the specificity of this marker to 98% and eliminated all but 2% of the false positive results in patients with chronic pancreatitis. Moreover, TPS is useful for detection of the early stages of clinical advancement of pancreatic carcinoma.

It seems that measurement of TPS, using 200 U/l as the cut off value, should facilitate more precise discrimination between the early stages of pancreatic carcinoma and chronic pancreatitis.

A Harlazinska-Szmyrka, M Strutyńska-Karpinska

Department of Clinical Immunology, Wroclaw Medical University, Mikulczyca-Rodeckiego, Street 7, Wroclaw 50-348, Poland

Correspondence to: Professor A Harlazinska-Szmyrka; immuno@immuno.am.wroc.pl

References


www.gutjnl.com
Small bowel malignancy in coeliac disease

We were interested to read the case report by Rampertab et al on small bowel neoplasia in coeliac disease (Gut 2003;52:1211–14). The findings are very much in accord with ours from the British Society of Gastroenterology (BSG) North West UK Survey published earlier this year.1 Over a two year period (1998–2000), we collected details of 175 cases of primary small intestinal adenocarcinoma, of which 13% were associated with coeliac disease and 7% with Crohn’s disease. With regard to coeliac associated adenocarcinomas, similar to Rampertab et al, we found a predominance of males (2:1) and an equal age range was 47–80 years. Fifty five per cent presented acutely, predominately with obstruction, and 45% chronically with anaemia, weight loss, or abdominal pain. Mean time of symptoms prior to diagnosis was 14 months, which was reflected in a relatively poor 30 month overall survival of 58%. In 63%, coeliac disease had been diagnosed a mean of 8.2 years prior to the diagnosis of adenocarcinoma; in almost all of these patients there had been a good clinical and mucosal response to a gluten free diet. In 37%, coeliac disease was diagnosed at the same time as adenocarcinoma.

Although 13% of small bowel adenocarcinomas being associated with coeliac disease implies that the risk of these cancers in coeliac disease is very high, such an increase translates into a very small absolute life time risk of less than 1%, as these tumours are rare and coeliac disease is very common. Nevertheless, we agree that coeliac patients require long term follow up for this and other complications. However, the best means of surveillance needs to be determined. Of most concern is the long delay in the diagnosis of small bowel adenocarcinoma, irrespective of whether or not coeliac disease is present. This leads to poor survival as 40% have metastasised by the time the diagnosis is made. A high index of suspicion is required by all gastroenterologists for this rare, but eminently treatable, type of adenocarcinoma.

P D Howdle, G K T Holmes
Department of Medicine, Clinical Sciences Building, University of Leeds, Leeds LS9 7TF, UK

Correspondence to: Professor P D Howdle; p.d.howdle@leeds.ac.uk

References


Submucosal “dissection” in collagenous colitis

We were fascinated to read the paper by Cruz-Correa et al (Gut 2002;51:600) describing cases of mucosal tearing at colonoscopy in patients subsequently found to have collagenous colitis. We were particularly interested in their postulated mechanism for these tears being a disruption of colonic mural integrity by the submucosal collagen layer. We would like to present two cases which add further weight to this theory as well as possibly providing information as to the pathogenesis of diarrhoea in this condition.

A 60 year old woman presented to her general practitioner with a two month history of profuse watery diarrhoea. A barium enema examination was reported as showing evidence of a mild colitis only. The general practitioner commenced corticosteroids resulting in complete resolution of her symptoms. On referral to our department, a gastrointestinal radiologist reviewed her radiographs. It was noticed that throughout the films there was a radiolucent border outlining the colonic mucosa (see fig 1) suggesting the presence of a submucosal layer of gas for which no explanation could be found. Although endoscopic examination of the colon was macroscopically normal, serial biopsies revealed the presence of a subepithelial collagen band up to 100 μm thick and a diagnosis of collagenous colitis was made. There was no evidence of pneumatisis or of submucosal barium on the small amount of submucosa included. She has since remained well on mesalazine.

The second patient was a 68 year old woman with a four week history of profuse watery diarrhoea. An emergency admission was required as a result of deranged clotting tests and a diagnosis of collagenous colitis. Standard serial biopsies were taken. Shortly following the procedure she complained of right shoulder tip pain. On examination she was neither distressed nor haemodynamically compromised. Her abdomen was soft. Chest and abdominal radiographs showed significant free gas under the diaphragm and in the peritoneum. At laparotomy she was found to have pneumoperitoneum without faecal contamination. No perforation was identified but there was considerable emphysema within the caecal wall extending proximally along the terminal ileum and distally to the mid ascending colon. No further operative procedure was performed. Endoscopic biopsies showed mild active inflammation and a subepithelial collagen band. None of the biopsies was full thickness. A diagnosis of collagenous colitis was made and her symptoms settled on a short course of corticosteroids.

We suggest that the complications seen in the investigation of these two patients result from a weakness within the colonic wall caused by the collagen layer. In the first case it appears that cleavage or dissection of the colonic wall along side the collagen layer may have occurred. It is unclear whether this happened as a result of air insufflation at the time of examination or whether it was already present. In the second case we postulate that air insufflated at the time of the colonoscopy tracked alongside the collagen layer perforating into the peritoneum remote from its original point of entry; possibly a proximal biopsy site.

If a true weakness in the integrity of the muscular layer of the colonic wall exists and such “dissection” can happen spontaneously, then it may provide some insight into the pathogenesis of the diarrhoea in this condition, especially as there appears to be no correlation between the width of the collagen band and the severity of symptoms.

J D Mitchell, R Teague, R Bolton, J Lowes
Torbay Hospital, Bessemer Rd, London SE5 9RS, UK

Correspondence to: J D Mitchell; jnmitch@claranet.com

Responses to endothelin-1 in patients with advanced cirrhosis before and after liver transplantation

I read with interest the article of Vaughan et al (Gut 2003;52:1505–10) and was pleased to note that the authors explored the changes in the responsiveness to ET-1 in patients with cirrhosis before and after liver transplantation. The authors found that endothelin-1 (ET-1) produces a marked vasodilatory response in patients with cirrhosis, and that this effect decreases significantly after liver transplantation.

The study is important because it sheds light on the mechanisms underlying the changes in vascular tone in patients with cirrhosis and provides insights into the potential therapeutic targets for the management of these patients. ET-1 is a powerful vasoconstrictor and has been implicated in the pathogenesis of portal hypertension and liver failure. The observation that ET-1 sensitivity decreases after liver transplantation suggests that this may be a useful biomarker for assessing the severity of liver disease and could be used to monitor the effectiveness of medical interventions.

The results of this study are consistent with previous findings in animal models of liver disease, where ET-1 receptors are upregulated and contribute to the development of portal hypertension. The authors’ findings provide a potential molecular explanation for the improved haemodynamics seen after liver transplantation, and suggest that ET-1 receptors may be a target for new therapies in the management of liver disease.

In conclusion, the study by Vaughan et al provides important new insights into the biology of ET-1 in patients with cirrhosis and highlights the potential of targeting ET-1 receptors as a therapeutic strategy for the management of liver disease. Further studies are required to confirm these findings and to explore the therapeutic potential of ET-1 receptor antagonists in this patient population.
see my novel studies1,2 partially reproduced in patients with decompensated cirrhosis. I disagree with some of the results as the study involves substantial design, methodol-
gy, and analysis problems.

The authors said that advanced cirrhotic patients have ‘generalised vasodilatation’. Vasodilatation does occur in these patients but only in the splanchic and pulmonary beds. Indeed, BFBR by me and others have shown vasoconstriction in the brachial, femoral, cerebral, and renal territories, espe-
cially in advanced cirrhosis.3,4 Therefore, I would like to press the point that with advancing cirrhosis, further activation of the neurohumoral systems occurs, with conse-
quent peripheral vasoconstriction. However, blood pooling, particularly in the splanchic bed, lowers systemic vascular resistance.

A major criticism of the study of Vaughan et al is that they measured forearm blood flow (FBF) in only one arm. Changing levels of alertness and external stimuli produce simi-
lar fluctuations in blood flow in both arms, and lead to significant misleading alterations in the measured responses if unilateral measurements are used. Thus responses to intra-arterial infusions should have been measured in both arms with the results expressed as ratios of concurrent FBF in the infused and non-infused arms, where the latter serves as a contemporaneous control for the drug effects in the former. Furthermore gut BFBR are significantly more reproducible than unilateral FBF mea-
surements both at rest and following infusion of vasoconstrictors.5

The authors demonstrated a surprising increase in FBF (~33–40%) in response to infusion of a locally active dose of the potent vasoconstrictor endothelin-1 (ET-1), which reached its maximum within five minutes from the start. They attributed their finding to enhanced ET A receptors mediated vasoila-
don. This needs to be tested by selectively blocking ET B receptors, using BQ-788. To date, upregulation of ET A receptors has been reported in the splanchic and pulmonary vascular beds, but not in the forearm.7 How can the maximum response to the slowly act-
ing ET-1 be reached within five minutes? Also, dose-response curves of the effects of ET-1 and BQ-123 should have been performed.

Some of the authors, ET B receptor mediated responses were unaltered while those mediated by the ET A receptor were enhanced in patients with decompensated cirrhosis. Thus one would expect that blocking the ET B receptors with BQ-123 would slow ET-1 to act unopposed on ET A receptors and produce enhanced vasodilatation. However, this was not the case (fig 2 in the paper). What adds to my surprise here is that BQ-123 inhibited the increased FBF by ~33–40%. How can infusion of ET-1 produce the same per cent change in FBF as infusion of its selective ET A receptor antagonists?

Many of the included patients were receiv-
ing diuretics, B-blockers, and immunosup-
pressive medications, which were withheld only on the day of testing. These medications affect circulating volume, vascular tone, and the activity of the neurohumoral systems. To eliminate these effects, drugs need to be stop-
ped for at least five times their half life. Altem-
atively, control subjects on the same med-
ications should be used (for example, renal transplant recipients with a normal liver).

Vaughan et al reported normal plasma ET-1 concentrations in decompensated cirrhosis, without measuring preproendothelin-1 mRNA or big ET-1, the biological precursor of ET-1. Due to its autoinocie, paracrine, and endocrine nature, plasma concentrations of ET-1 alone do not reflect the activity of the endothelin system or the status of ET-1 production.8 This should have been stated by the authors. I also recommend collecting samples in tubes containing 1000 IU kaunin and EDTA.

In conclusion, the scientific contents of this article would have been greater if the authors had: (1) measured FBF in both arms; (2) presented their data as per cent change in the ratio of flows in both arms at every time point; (3) assessed plasma big ET-1 or preproendothelin mRNA concentra-
tions; (4) examined the responses to an ET B receptor antagonist; (5) performed a dose-
response curve; and (6) selected a compar-
able control group on similar medications as the patients.

A Helmy

Correspondence to: Dr A Helmy, Gastroenterology and Tropical Medicine Department, 6th Floor, Assiut University Hospital, Assiut 71111, Egypt. aahsamed10@hotmail.com

References
2 Helmy A, Jalan R, Newby DE et al. Altered peripheral vascular responses to exogenous and endogenous endothelin-1 in patients with well-

Germline testing of mismatch repair gene mutations is not aided by prescreening tumours for allelic loss

Immunostaining and microsatellite testing of tumours is increasingly being used to guide germline testing in individuals with suspected hereditary non-polyposis colorectal cancer (HNPCC).1 While the aim of these prescreening tests is to name one or more predators and maximise the chance of identifying a patho-
genic germline change, it is clear that neither alone is ideal. In clinical practice, germline testing can often only be justified where an individual has developed a tumour which is microsatellite unstable, and which fails to express a mismatch repair protein. Clearly, this approach is imperfect as not all patho-
genic germline mutations are associated with failure of expression of the mismatch repair proteins. The aim of this pilot study was to retrospectively assess the utility of loss of heterozygosity studies in predicting the matched mismatch repair gene.

Seven individuals with germline mutations in hMSH2 were identified from the family cancer clinic at St Vincent’s Hospital, Sydney. The tumours from each of these individuals were microsatellite unstable and failed to express hMSH2, but demonstrated normal expression of hMLH1. For loss of heterozygosity (LOH) analysis, we used microsatellite markers D1S180 and D1S235 (for Exo1), PMS1.1, D2S118, and D2S155 (for PMS1), D2S21153, D2S2156, D2S2292, D2S2369, and D2S2378 (for hMSH2 and hMLH1) and D3S1447 and D3S3685 (for hMLH1). Only heterozygous loci were regarded as informa-
tive and LOH was scored when there was a major reduction (at least 50%) or total loss of one allele in the tumour compared to normal tissues.

Of the seven tumours examined in this study, six showed allelic loss of hMSH2, suggesting that the residual normal allele was silenced by LOH (fig 1). In five tumours, allelic loss of hMSH2 occurred in association with LOH in at least one other mismatch repair gene. Only one tumour had retained heterozygosity at all assessable loci, possibly indicating that a mutation had caused the second hit in this tumour. Allelic loss of hMSH2 often occurs in association with germline mutations but it is clear that loss of the other mismatch repair genes is also a frequent finding. Screening tumours for LOH should not be employed to select patients for mutation analysis of mismatch repair genes. The use of immuno-
histochemistry and microsatellite testing remain the best available prescreening tools.

**Figure 1** Loss of heterozygosity analysis of four mismatch repair genes tumours from seven individuals with germline mutations in hMSH2. White areas, retention of heterozygosity; grey areas, not informative; black areas, loss of heterozygosity.
Mild respiratory distress after wireless capsule endoscopy

A 74 year old male patient was seen in our clinic for chronic diarrhoea. Duodenal biopsies revealed the presence of coeliac disease; upper and lower endoscopies were otherwise unremarkable. As he also presented with marked anaemia and weight loss, he underwent wireless capsule endoscopy (M2A capsule; Given Imaging) in order to exclude additional small bowel pathology.

On the second day after application of the capsule (and before analysis of the pictures), he complained of mild respiratory distress while walking, which had started “right after swallowing the capsule”. Physical examination revealed quiet inspiratory and expiratory swallowing while walking, which had started “right after swallowing the capsule”. Physical examination revealed quiet inspiratory and expiratory wheezing, most audible over the central part of the right lung. A chest x-ray was obtained (fig 1) which showed aspiration of the video capsule into the right main bronchus. Because of the smooth surface of the capsule, its removal by flexible bronchoscopy proved to be rather difficult, but eventually it was successfully recovered from the bronchial tree. The patient made an uneventful recovery.

He had a history of ankylosing spondylitis with involvement of the cervical spine. Although he reported no symptoms of dysphagia and recalled swallowing the capsule as uneventful, it may be possible that the cervical spine disease contributed to aspiration of the capsule.

To the best of our knowledge, this is the first published case of aspiration of an M2A capsule since this diagnostic method has become available to general clinical practice. It underlines the recommendations of the manufacturer for cautious use in patients with known or possible swallowing disorders (http://www.givenimaging.com).

**Reference**


Late development of cholangiocarcinoma after hepaticeojunostomy due to ampullary carcinoma

We read with great interest the article by Bettschart et al (Gut 2002;50:128–9) which found an increase in cholangiocarcinoma incidence after biliary-enteric drainage for benign disease.

In their hypothesis, changes in biliary epithelium were induced by toxic carcinogenesis due to reflux of intestinal contents and bile stasis. However, this chronic irritation and carcinogenesis of the biliary mucosa after biliary-enteric drainage has not been reported after surgery for malignant disease. We present a case of a 65 year old woman who developed a cholangiocarcinoma eight years after duodenopancreatectomy for an ampullary carcinoma, stage I. The patient was referred to our department because of obstructive jaundice and cholangitis. Computed tomography scan showed that the patient was disease free. Percutaneous transhepatic cholangiography showed biliary-enteric anastomosis stricture and a diffuse biliary stenosis.

Percutaneous transhepatic anastomosis dilatation was performed but was ineffective. The patient was operated on and extensive fibrosis and inflammation of the biliary-enteric anastomosis and biliary duct were detected (fig 1). Resection of the stricture and hepaticeojunostomy were performed. In addition to fibrotic and inflammatory tissue, histological examination showed a poorly differentiated cholangiocarcinoma with invasion of all levels of the right hepatic duct wall. Surgical margins were free of disease. The patient was discharged on the 10th postoperative day. She died 10 months after surgery.

In common with the authors, we support the hypothesis that reflux of intestinal contents, bacterial translocation, and pancreatic juice can trigger biliary mucosal changes and the carcinogenesis process.1,4 We believe that apart from those predisposing factors causing chronic cholangitis, there must be susceptibility in these patients due to genetically altered enzymes that are involved in detoxifying carcinogenic products.1 This is the first case report of malignant transformation in the biliary epithelium after biliary-enteric anastomosis for malignant disease. As there are no markers to identify patients in the early stage of development of malignant transformation, we agree with the authors4 about monitoring all patients who develop cholangitis after biliary-enteric anastomosis for benign disease and also patients with malignant disease who are in remission.

D Padilla, T Cubo, R Pardo, J M Molina, J Hernández
Department of Surgery, Complejo Hospitalario, 13005 Ciudad Real, Spain

**References**

Adoptive transfer of genetic susceptibility to Crohn’s disease

We read with interest the stimulating case report on fulminant Crohn’s colitis following allogeneic transplantation by Sonwakar et al (Gut 2003;52:1518–21) and the respective editorial. The authors and the editorialists hypothesised on whether the colitis might be ascribed to the adoptive transfer of stem cells displaying genetic alterations which are associated with Crohn’s disease. However, the ileal sparing phenomenon might be the persistent immunosuppressive therapy the donor had received.

C Folwaczny, J Glas, T Mussack, H P Türök
Klinikum Innenstadt, Ludwig-Maximilians University, Munich, Germany
Correspondence to: Dr C Folwaczny; Christian.Folwaczny@medizin.uni-muenchen.de

References


BOOK REVIEWS

Self Assessment Colour Review of Hepatobiliary Medicine


Roger Chapman and Henry Bodenheimer have produced a useful addition to the libraries of gastroenterologists with an interest in liver disease. Hepatobiliary Medicine provides 180 questions and answers in 190 pages covering a wide range of hepatobiliary problems. The book will fit in a white coat pocket and is printed on high quality glossy paper. The questions comprise case histories illustrated with laboratory test results and photographs of histology and imaging investigations. Unfortunately, the reproduction does not allow readers to recognise some of the histological and imaging abnormalities referred to in the text, but most can be discerned with the benefit of hindsight (and the answers). The authors have done an excellent job in assembling a diverse collection of cases with relevant images and laboratory data. The questions are presented on one side of the page and the answers are on the reverse, allowing the reader to formulate their own responses without “cheating.”

The subject matter of the book encompasses the full range of liver diseases, including a fair smattering of rarities that are only likely to be encountered more than once by specialist hepatologists. Indeed, the content of the cases will test experts. Hepatobiliary Medicine fulfills the remit of the series, as declared in the book’s header, to help readers “learn, revise, reinforce”. Inclusion of a number of paediatric cases will be particularly helpful to adult gastroenterologists/hepatologists who are occasionally asked to see paediatric cases. The authors have included an index and a list of cases classified by diagnosis. This is extremely useful when using the book for revision or reinforcement. The classification of cases reveals some surprising choices of emphasis. Eight questions on primary sclerosing cholangitis, seven on Wilson’s disease, and one on fatty liver disease hardly reflects the distribution of cases that the general gastroenterologist might encounter but the selection of cases will educate and inform, and the choices reflect the difficulty of diagnostic conundrums rather than disease prevalence.

Publication of this short textbook is timely with the growth of hepatology as a subspeciality and the shortening of training programmes reducing the opportunities for trainees to “learn by osmosis” (see also the case based experience). This book will be particularly useful for trainees in gastroenterology and hepatology.

However, there are a few caveats and some things that could have been improved. Hepatobiliary Medicine does not claim to be a textbook but the authoritative voice used in the answers carries an air of certainty. In the vast majority of cases, little fault can be found with the information contained in the answers although the level of knowledge assumed by the authors and that offered to the readers is variable. As a result, some of the information contained in the answers is superficial and some is out of date. Inclusion of key references and a recommended reading list would have been helpful. A compact disc or website presenting the photographic images might enhance the visual aspects of the book.

This book will be useful to trainees in gastroenterology and hepatology, to specialists who are asked to consult on difficult hepatobiliary cases, and even to specialist hepatologists seeking reinforcement of problems they rarely encounter. Self Assessment Colour Review of Hepatobiliary Medicine is a useful addition to the gastroenterologist’s library.

W Rosenberg

The Inflammatory Bowel Disease Yearbook 2003


This is the first in a planned yearly series of updates on the latest topics in inflammatory bowel disease clinical practice and research. I was initially sceptical that the hard backed book format could provide a reasonable current overview but was pleasantly surprised that the reviews were topical and cited papers from early 2003 (including for example, the natalizumab trial and wireless endoscopy data). These are aimed at the general gastroenterologist, and those with a more in depth clinical or research interest in inflammatory bowel disease.

Six key current areas are reviewed by experts in the field: conventional drug therapy, the newer biological therapies, serodiagnosis, genetics, imaging developments, and...
probiotics. These topics are written by authors expert in the field, and there is little overlap between the chapters—often a problem in the multi-author format. I would have preferred more detail in a few areas (for example, pharmacology/adverse response prediction with azathioprine) and a bit less in others (for example, some of the genetics chapter is too detailed, and it was not easy to differentiate replicated from preliminary findings). All chapters are well referenced, with good tables and figures of key points providing clarity.

The Yearbook disappeared once from my shelf while I was trying to review it—to provide preparation for a colleague’s brush with the media spotlight—so I would definitely recommend it as a useful update. It might be especially helpful if one had missed out on attending a recent gastroenterology conference. Finally, Remedica might be able to further promote the Yearbook with a prize for guessing the nature and relevance of the weird industrial plumbing on the cover.

D van Heel

Fast Facts: Irritable Bowel Syndrome, 2nd edn


Functional gastrointestinal disorders in general, and irritable bowel syndrome in particular, have long been a minefield of misunderstanding and mismanagement which has caused confusion not only to clinicians but also to patients.

In recent years, an international working team have attempted to resolve this babel-like tower of confusion by forming the now famous Rome group and producing Rome criteria which have served to harmonise clinical terms and facilitate trials of therapy. However, in general, ex cathedra statements and weighty tomes from the Vatican have rarely changed the understanding of the gospel for the average cleric or parishioner, and a simpler interpretation is usually required. This little “hymnal” provided by two experienced practitioners with many decades of practical experience and a “cardinal” understanding of the issues of irritable bowel syndrome, now provides just what is necessary to bring the word to the people.

The book’s mission is to review in a simple and balanced way what we know (and what we do not know) about the nature of symptoms, and their causes, and how, in an equally simple and practical way, both the primary care practitioner and patients can help themselves to cope with what is often a disturbing chronic set of problems. Their communication style is clear and concise, and without any tendency to pontificate. While its target readership is stated to be the “family doctor”, I am sure that it is equally relevant for the gastroenterologist and for the trainee in gastroenterology for whom the standard textbooks on the subject do not offer much practical guidance in the clinic.

Broadsheet reading patients would also benefit from the balanced view provided by the authors and with luck might in turn reduce their uptake of the increasingly bizarre non-orthodox therapies which are now appearing.

The books first edition appeared in 1999, and has now, by popular demand, been re-published in an extensively updated version. It clearly reflects current understanding of the condition and provides a balanced and pragmatic view of its management.

In short, an excellent and up to date pocket palster for the practitioner.

D Thompson

NOTICES

British Society of Gastroenterology
Paul Brown Travel Fellowships

The Paul Brown Travel Fellowships are awarded by the Endoscopy Committee of the BSG. They are intended to assist trainee gastroenterologists and established consultants in visits to units outside the United Kingdom for specialist experience and training in endoscopy.

Specialist registrars who have not achieved their CCST are expected to have the approval of their Postgraduate Dean and their Regional Training Director when they apply for a Travel Fellowship. Applicants are expected to provide confirmation that they have been accepted for training in the unit that they wish to visit.

Successful applications will be expected to provide a brief written report to the Endoscopy Committee of the outcome of their visit.

Application forms are available from the British Society of Gastroenterology Office, 3 St Andrew’s Place, London NW1 4LB. Email: bsg@mailbox.ulc.ac.uk

PET/CT and SPECT/CT Imaging in Medical, Radiation, Surgical and Nuclear Oncology

This continuing medical education programme will take place on 19–20 March 2004 at Johns Hopkins University School of Medicine, Baltimore, Maryland, USA. Further details: Office of Continuing Medical Education, Johns Hopkins University School of Medicine, Turner 20, 720 Rutland Avenue, Baltimore, Maryland 21205-2195. Tel: +1 410 955 2959; fax: +1 410 955 0807; email: cmnet@jhmi.edu; website: www.hopkinscme.org

39th Annual Meeting of the European Association for the Study of the Liver

This meeting will be held on 15–19 April 2004 in Berlin, Germany. Further details: Secretariat, c/o Kennes International, 17 rue du Cendrier, PO Box 1726, CH-1211 Geneva, Switzerland. Tel: +41 22 908 0488; fax: +41 22 732 2850; email: info@easl.ch; website: www.easl.ch/easl2004

• Deadline for receipt of abstracts: 16 November 2003
• Deadline for early registration 10 February 2004

14th International Workshop of Digestive Endoscopy, Ultrasonography and Radiology

The 14th International Workshop of Digestive Endoscopy, Ultrasonography and Radiology will be held in Marseille on 27–28 May 2004. For further information, please contact: Nathalie Fontant, Atelier Phenix, 41 rue Docteur Morruci, 13006 — Marseille (tel: (33) 04-91-37-50-83; fax: (33) 04-91-57-15-28; e-mail: nfontant@aphenix.com).

European Postgraduate Gastro-surgical School (EPGS) Courses 2004

The EPGS at the Academic Medical Center of the University of Amsterdam will be holding the following courses during the year: ‘Benign Hepato-Biliary Disorders’ will be held on 22 & 23 April 2004, ‘Endosonography live in Amsterdam’ will be held on 2, 3 & 4 June 2004, and ‘Update in Coloproctology’ will be held on 28 & 29 October 2004. For further information, please contact: J Goedkoop (tel: (31) 566 9296; fax: (33) 267 5934; e-mail: j.goedkoop@amc.uva.nl; website: www.epgs.nl).
Primary antiphospholipid syndrome as a new cause of autoimmune pancreatitis

H L Spencer

Gut 2004 53: 468

Updated information and services can be found at:
http://gut.bmj.com/content/53/3/468.1

These include:

References
This article cites 8 articles, 1 of which you can access for free at:
http://gut.bmj.com/content/53/3/468.1#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/