Highlights from this issue

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Emad El-Omar, Alexander Gerbes and William Grady, *Editor and Deputy Editors*

Stepwise radical endoscopic resection versus radiofrequency ablation for Barrett's associated dysplasia and early cancer

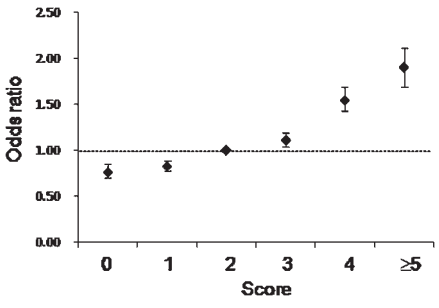
Stepwise radical endoscopic resection (SRER) is safe and effective for early Barrett's neoplasia, but is associated with oesophageal stenosis. Focal endoscopic resection (ER) followed by radiofrequency ablation (RFA) is safe and effective for early Barrett's neoplasia, but does not yield a complete specimen for histological evaluation. In this issue of *Gut*, van Vilsteren *et al* compared the safety of SRER versus focal ER followed by RFA for complete eradication of Barrett's oesophagus (BO) containing high grade dysplasia/early cancer. They conducted a multicentre clinical trial and randomised patients with BO <5 cm containing high grade dysplasia/early cancer to SRER or ER/RFA. Patients in the SRER group underwent piecemeal ER of 50% of BO followed by serial ER. Patients in the ER/RFA group underwent focal ER for visible lesions followed by serial RFA. Follow-up endoscopy was performed at 6 and 12 months and then annually. The main outcome measures were: stenosis rate; complications; complete histological response for neoplasia (CR-neoplasia); and complete histological response for intestinal metaplasia (CR-IM). SRER resulted in a higher rate of oesophageal stenosis and required a higher total number of therapeutic sessions due to dilation sessions for oesophageal stenoses. The authors concluded that for patients with early Barrett's neoplasia a combined endoscopic approach of focal ER followed by RFA may be preferred over SRER (***see page 765***).

Variation in 30-day post-operative mortality for colon cancer across England

Surgery is the mainstay of colorectal cancer (CRC) treatment and is generally undertaken within 6 months of diagnosis. International variation in survival is greatest in this period, suggesting that differences in the quality of care may explain some of the variation. In this landmark study, Morris *et al* assessed the variation in risk-adjusted 30-day post-operative mortality for patients with CRC between hospital trusts within the English NHS. They conducted a retrospective cross-sectional population-based study of data extracted from the National Cancer Data Repository. The data covered all providers of major colorectal cancer surgery within the English NHS and included all 160 920 individuals who underwent major resection for CRC diagnosed between 1998 and 2006. Overall 30-day mortality was 6.7% but decreased over time from 6.8% in 1998 to 5.8% in 2006. Postoperative mortality increased with age, comorbidity, stage of disease, socioeconomic deprivation and operative urgency. Risk-adjusted control charts showed that one trust had consistently significantly better outcomes and three had significantly worse outcomes than the population mean. This work will act as a stimulus to identify and spread best practice, improve outcomes and, ultimately, reduce postoperative mortality following colorectal cancer surgery (***see page 806***).

Is colorectal cancer in the East the same as in the West?

Colorectal cancer is a multifactorial disease with both environmental and genetic factors contributing to its development. The incidence of CRC is increasing in many Asian countries. Although many of the genetic factors contributing to the risk of colorectal cancer have been identified in western populations, it is not known if these factors are important in the East. Consequently, Matsuda and colleagues performed a genome-wide association study for colorectal cancer using 1583 Japanese CRC cases and 1898 controls as well as a replication study using a total of 4809 CRC cases and 2973 controls including 225 Korean subjects with distal colon cancer and 377 controls. They found a novel locus on 6q26-q27 region (rs7758229 in *SLC22A3*, *OR* 1.28) that was significantly associated with distal colon cancer and cumulative effects of three genetic (rs7758229, rs6983267, and rs4939827 in *SMAD7*) and one environmental factors (alcohol drinking) (OR 2). These results further extend our understanding of the role of common genetic variants in colorectal cancer arising in Asian populations (***see page 799***).



Impact of genetic and environmental factors on colorectal cancer susceptibility.

In the war against cancer, man's best friend is more than just a companion

The detection of early-stage colorectal cancer leads to more successful treatment outcomes of this common form of cancer. Although there are currently available effective screening tests that can identify people with colon polyps and early colorectal cancer, these tests, FOBT, FIT, and colonoscopy, all have significant limitations. Consequently, Sonoda *et al* have assessed a novel method for colon cancer detection, canine scent detection, to determine whether odour material can become an effective tool in colorectal cancer screening. They obtained exhaled breath and watery stool samples from examinees prior to colonoscopy, and then used a Labrador Retriever specially trained in scent detection of cancer to assess the samples. Remarkably, they found the sensitivity of canine scent detection of breath samples compared to conventional diagnosis by colonoscopy was 0.91, and the specificity was 0.99. Moreover, the sensitivity of canine scent detection of stool samples was 0.97 and the specificity was 0.99. These studies suggest that cancer-specific volatile organic compounds have the potential to lead to the development of new methods for early detection of colorectal cancer (***see page 814***).

Accuracy of detection using canine scent

	Breath samples						Watery stool samples					
Site/stage	0	I	II	III	IV	Total	0	I	II	III	IV	Total
Appendix			1/1			1/1			1/1			1/1
Cecum		1/1				1/1		1/1				1/1
Ascending	1/1		3/3	4/5*	2/2	10/11*	1/1	1/1	3/3	5/5	2/2	12/12
Transverse	1/1					1/1	1/1		1/1			2/2
Descending			1/1	1/1		2/2			1/1	1/1		2/2
Sigmoid	1/1	4/5	1/1		1/1	7/8	2/2	2/2	1/1		1/1	6/6
Rectum	1/1	1/2	1/1	3/3	4/4	10/11	2/2	1/2	2/2	4/4	3/3	12/13
R+S				1/1		1/1				1/1		1/1
Total	4/4	6/8	7/7	9/10*	7/7	33/36*	6/6	5/6	9/9	11/11	6/6	37/38
Sensitivity	1	0.67	1	0.89	1	0.91	1	0.8	1	1	1	0.97
Specificity	1	0.92	1	1	1	0.99	1	0.95	1	1	1	0.99

R+S: double rectal and sigmoid colon cancer.
Number of true positives/total test number are shown.
*Hesitation occurred.

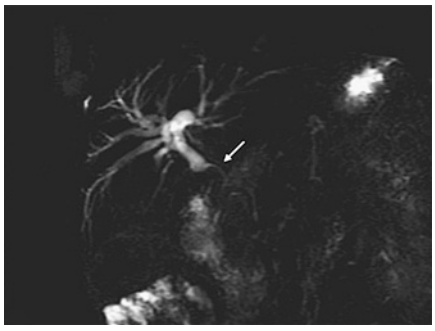


Figure 1C MR cholangiography showing grade III cholangiopathy with stricture (arrow) and prestenotic dilatation.

Transjugular intrahepatic portosystemic shunt (TIPS) for PVT in cirrhosis

TIPS is an established treatment for patients with ascites or other complications of cirrhosis (for review see *GUT* 2010;**59**:988–1000). However, there are few data on TIPS in patients with cirrhosis and PVT, where TIPS may be difficult to insert and may be occluded rapidly due to thrombophilic disorders. This interesting study from Palermo followed 70 patients with PVT and TIPS for complications of cirrhosis. Following TIPS ***no*** anticoagulation or thrombolytic treatment was given. Despite this, recanalisation of the portal vein was observed frequently (table 4). The data suggest that PVT in these patients may be mainly due to haemodynamic factors and that TIPS is a valuable therapeutic option. Whether addition of anticoagulation improves the results obtained with TIPS alone and how TIPS compares to anticoagulation should be interesting issues for prospective studies (***see page 847***).

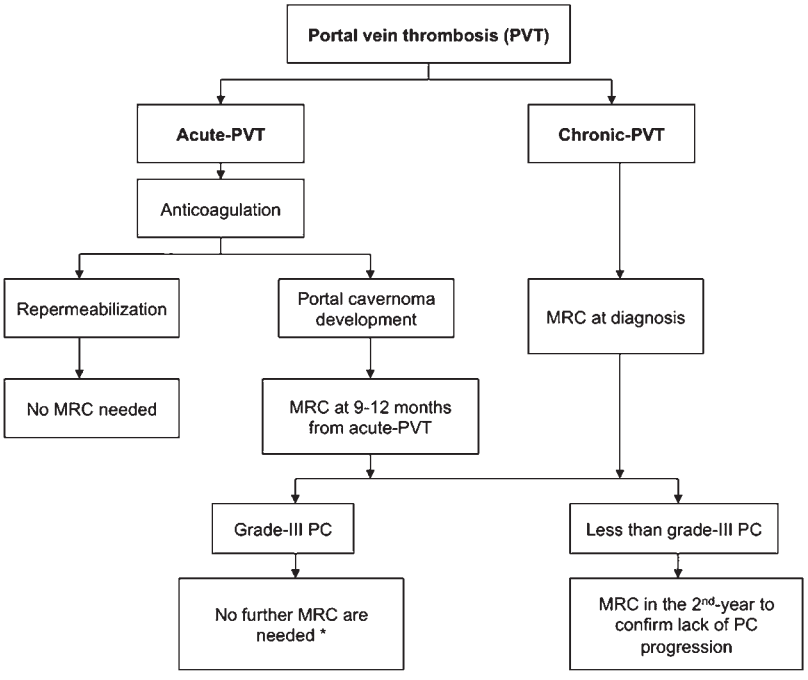
Table 4 Severity of thrombosis decreases following TIPS

	Before TIPS	After TIPS	p Value
Severity of thrombosis, n			
Grade 0	0	40	<0.001
Grade I	7	17	
Grade II	24	7	
Grade III	15	6	
Grade IV	24	0	
Lumen occupancy, %			
MPV	49±28	10±18	<0.001
SMV	37±29	10±17	<0.001
SV	10±21	3±11	<0.002

Severity of thrombosis was estimated as follows: Grade 0 (no detectable thrombus), Grade I (1–25% luminal occlusion), Grade II (26–50%), Grade III (51–75%) Grade IV (76–100%).
TIPS, transjugular intrahepatic portosystemic shunt; MPV, main portal vein; SMV, superior mesenteric vein; SV, splenic vein.

Non-cirrhotic PVT—how to predict symptomatic cholangiopathy

Portal cholangiopathy is rare, but a frequent complication in patients with non-cirrhotic non-tumoural PVT. The first longitudinal and largest study as yet provides interesting and clinically relevant information. A total of 67 patients, 22 with acute and 45 with chronic PVT were managed and followed according to an established protocol. MR cholangiography was used to define three degrees of cholangiopathy. Biliary symptoms occurred only in patients with grade III cholangiopathy (figure 1C). Based on their observations the authors from Barcelona propose a diagnostic algorithm (figure 3). Future studies should investigate the performance of duplex-doppler ultrasound as compared to MR for this purpose (***see page 854***).



MRC: MR-cholangiography.
* In case of symptomatic PC a MRC is recommended to evaluate the presence of biliary complications as cholecystitis or choledocolitiasis.

Figure 3 Proposed algorithm for cholangiopathy in PVT.