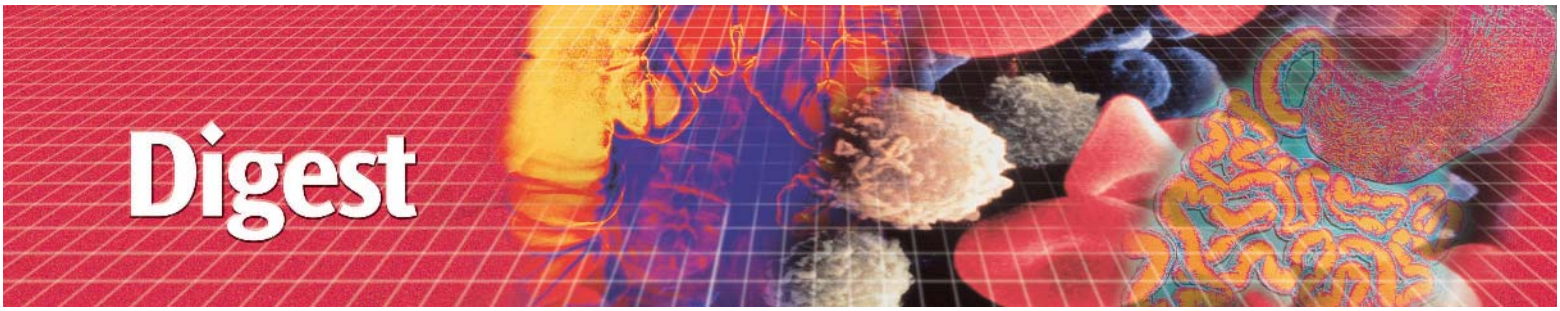

Robin Spiller, *Editor*

THE MUNICH BARRETT FOLLOW UP STUDY

Most gastroenterologists endoscope many patients with reflux each week. The findings of the large endoscopic study reported by Meining *et al* has important implications about the decision of whether or not to biopsy a normal looking Z line looking for Barrett's oesophagus. This study of 929 patients from Munich found poor reproducibility, particularly in patients in whom the histological and endoscopic findings conflicted. When repeated an average of 31 months later only 37% of original findings were confirmed. The authors felt that this related to retching and sampling errors in a condition that may be patchy. They also concluded that biopsying an endoscopically normal Z line cannot be recommended at present and called for more reliable techniques to detect Barrett's oesophagus and/or dysphasia at the oesophago-gastric junction. Magnifying endoscopy and staining might be valuable in this respect, but are as yet unproven.

See p 1402

ENTEROPATHY PRECEDES TYPE 1 DIABETES IN THE BB RAT

The incidence of celiac disease in type 1 diabetes is known to be increased, possibly due to these diseases showing overlapping susceptibility genes, particularly the HLA DQB1*0210 allele. In humans, both conditions are associated with increased gut permeability, which is also seen in the diabetes prone rat (BBdp), 65% of which develop diabetes if fed a gluten containing diet. In humans, it is hard to tell whether the diabetes causes the gut abnormality or vice versa. The paper by Graham *et al* shows clearly that a coeliac like enteropathy was observed by day 30, whereas diabetes with lymphocytic infiltration of the pancreas did not develop until day 60. Thymectomy prevented the development of diabetes but did not alter the gut changes, indicating that there is no direct relationship between the enteropathy and diabetes but more likely an indirect one associated with abnormalities of immune function which caused both conditions.

See p 1437

UNEXPLAINED ABDOMINAL PAIN IN PATIENTS WITH IBS

Unexplained abdominal pain in patients with irritable bowel syndrome (IBS) is a major clinical problem associated in many cases with reported increased pain in response to gut distension. However, whether this hypersensitivity is due to central or peripheral changes is unclear. This issue of *Gut* contains the first study to use objective means to demonstrate facilitation of neurotransmission at the spinal level in IBS. The authors used a well tried technique, the RIII reflex, that involves recording the electromyographic (EMG) response in the biceps femoris to electrical stimulation of the sural nerve. Progressive slow distension of the rectum in healthy volunteers inhibits this reflex by about 50%, whereas in 14 IBS patients the response increased by about 30%. Failure of inhibition was less obvious with rapid distension and the authors interpret this and other data to indicate the problem is not so much one of enhanced spinal excitability but rather a failure of descending inhibitory mechanisms. This is an exciting development because this technique can be readily used to investigate the pathophysiology and pharmacological treatment of this common but difficult condition.

See p 1465

GENOTYPE C HBV IS ASSOCIATED WITH INCREASED RISK OF HCC

Hepatocellular carcinoma (HCC) is a major cause of morbidity and mortality in areas of the world where HBV infection is endemic, with an annual incidence of around 1 per 200 infected cases. In areas where the population prevalence of HBV infection is around 15% annual screening for HCC becomes unmanageable unless one can identify high risk groups. Known risk factors include age, the presence of cirrhosis, and HBeAg status, but the role of a viral genotype is controversial. The group from Hong Kong followed 426 HBV positive individuals and demonstrated a rising incidence of HCC, reaching 6% by year 5. Although age and male sex increased the risk, when multivariate analysis was undertaken this effect disappeared, with cirrhosis as the strongest predictor with a 10-fold relative risk of developing HCC. HBV Genotype C had an adjusted relative risk of 2.8. Whether determining viral genotype prior to entry into HCC surveillance programmes will increase cost effectiveness now requires prospective evaluation.

See p 1494

HBsAg variant in infected children in Taiwan

The hepatitis B vaccination programme in Taiwan, which began in 1984, has been one of the great public health success stories of recent years. The prevalence of chronic hepatitis B infection in the under 15s has fallen from 10% in 1984 to 0.7% in 1999. However, there has been concern that the success of the vaccination programme might be put at risk by the emergence of viral mutations, particularly in the key *a* determinant. This is located between amino acids 121 and 149 of the hepatitis B surface antigen (HBsAg) and is the major immune target of polyclonal antibody against HBsAg. The report by Hsu *et al* shows that the prevalence of these *a* determinant mutants rose from 7.8% in 1984 to 19.6% in 1989, 28% in 1994 and 23% in 1999. Happily, these mutants do not seem likely to threaten the success of the programme because older chronic hepatitis B virus (HBV) carriers infected with the wild type virus are still the major source of mother to child transmission. The mutants appear to have low transmissability because none of the family members of the infected children in the 1999 survey harboured the same variant. Furthermore, the authors comment that the anti-HBsAG antibodies are usually polyclonal in nature and single amino acid substitution in the *a* determinant may not prevent biological activity. The overall message seems be one of cautious optimism.

See p 1499