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Searching for the cause of IBD. Will MAPs help? ►

▲ Naser SA, Ghobrial G, Romero C, *et al*. Culture of *Mycobacterium avium* subspecies *paratuberculosis* from the blood of patients with Crohn's disease. *Lancet* 2004;**364**:1039–44.

Mycobacterium avium subspecies *paratuberculosis* (MAP) causes chronic enteritis in cattle (Johne's disease). Cell wall deficient structures (spheroplasts) have been cultured from Crohn's disease tissues, and have been confirmed by DNA hybridisation techniques as MAP. MAP is extremely difficult to culture, and studies have used the DNA insertion element IS900 for identification. Polymerase chain reaction cannot distinguish viable MAP from MAP DNA. Studies to date have been conflicting and the role of MAP remains controversial. Naser and colleagues, from Orlando, Florida, USA have previously cultured MAP from tissue and breast milk of Crohn's patients, but not controls.

In the present study (n = 52), buffy coat preparations of peripheral blood were tested for MAP by polymerase chain reaction and culture. MAP DNA was detected in 46% of Crohn's, 44% of ulcerative colitis, and 20% of controls. MAP was isolated from culture in 50% of Crohn's, 22% of ulcerative colitis, and no controls (a highly significant difference). Sixteen of 28 Crohn's patients were on immunosuppression but this did not correlate with positive cultures.

These results provide further evidence that MAP is common in the environment, and that patients with Crohn's disease have systemic infection with viable MAP organisms. Is the presence of viable organisms in blood a secondary phenomenon, due to leaky gut/blood barrier, or due to impaired immune defences in Crohn's? If MAP is a primary pathogenic factor in Crohn's, why is the use of infliximab not associated with systemic MAP infection? Studies with subclinical disease, or Crohn's relatives, may shed light, as may the recently completed Australian trial of clarithromycin, rifabutin, and clofazimine. We need a compass as well as a MAP!

Ablate while you wait? ►

▲ Mazzaferro V, Battiston C, Perrone S, *et al*. Radiofrequency ablation of small hepatocellular carcinoma in cirrhotic patients awaiting liver transplantation. *Ann Surg* 2004;**240**:900–9.

The long term results of liver transplantation in patients with cirrhosis and concomitant primary liver tumours are significantly better in those patients with smaller tumours. Unfortunately, some patients need to wait for their transplant and in these patients the tumours may grow, so reducing the ultimate efficacy of the transplant. Radiofrequency ablation (RFA) is a destructive technique which can be used to treat patients with primary and secondary liver tumours. In some patients the technique may be carried out percutaneously. In others, ablation is done laparoscopically or at open surgery. In this study, the value of RFA in holding the disease static was determined in 50 cirrhotic patients with 60 lesions awaiting transplantation. A complete response was found in 55% of patients undergoing RFA or in 63% of those with lesions less than 3 cm in diameter. Growth of residual tumour was seen in 59% of patients 12 months after ablation or in 70% 18 months after ablation. There was no mortality and morbidity was seen in only 8%. Post-transplant three year patient/graft survival was 83%. Tumour size >3 cm and time from treatment (>1 year) predicted a high risk of residual tumour in the targeted module. RFA is not an alternative treatment for these patients but may be used as a bridge to transplantation.

Faecal DNA for colorectal cancer screening: the jury is still out ►

▲ Imperiale TF, Ransohoff DF, Itzkowitz SH, *et al*. Fecal DNA versus fecal occult blood for colorectal-cancer screening in an average-risk population. *N Engl J Med* 2004;**351**:2704–14.

Colorectal carcinoma is the second highest cause of cancer mortality in the UK and the most appropriate screening methods are being evaluated. Faecal DNA is a new modality that has recently been developed but has not been tested in average risk individuals. Imperiale *et al* enrolled 5486 asymptomatic subjects over the age of 50 years attending for screening colonoscopy. Prior to investigation they underwent standard faecal occult blood testing (FOB) and faecal DNA analysis. The accuracy of these tests against colonoscopy was determined in all colorectal cancers and a randomly selected group of patients with adenoma (n = 1051) and a normal examination (n = 1423) in a nested case control design. In this subgroup, faecal DNA detected 16/31 (52%) cancers compared with 4/31 (13%) by FOB. Faecal DNA detected 18% of adenomas compared with 11% with FOB. There were 79 false positive faecal DNA and 68 false positive FOB tests in 1423 normal colonoscopies. Faecal DNA seems more effective than FOB although caution is needed. Sensitivity is not ideal and estimated accuracy often falls as new tests continue to be evaluated. The accuracy of FOB in this study is also much lower than suggested by a systematic review of randomised trials where there was a 23% reduction in colorectal cancer mortality (Towler *et al*. *BMJ* 1998;**317**:559–65). FOB may therefore not be as poor an alternative as these data suggest.

Pancreatic masses: anyone for steroids? ►

▲ Farrell JJ, Garber J, Sahani D, *et al*. EUS findings in patients with autoimmune pancreatitis. *Gastrointest Endosc* 2004;**60**:927–36.

Autoimmune pancreatitis (AIP) has been described in Japan, often in association with other autoimmune disease, high erythrocyte sedimentation rate, and elevated serum IgG4 levels. Recently it has been recognised in Western countries but little is known about the condition. The authors report their experience of endoscopic ultrasound (EUS) with or without fine needle aspiration (FNA) in a series of 14 patients with AIP. Thirteen patients were men (mean age 50.6 years; range 17–80) and all met clinical criteria for diagnosis of the condition. Eleven presented with obstructive jaundice and/or pain while weight loss was present in over half and seven had a history of autoimmunity. Nine of the 14 had computed tomography evidence of a pancreatic head mass, and diffuse pancreatic swelling was present in five cases. EUS revealed diffuse pancreatic swelling in eight patients (57%) and a solitary mass lesion in the other six (2.5–5 cm). Apparent vascular involvement was present in three and peripancreatic nodes, often large, were identified in seven patients. Twelve patients underwent FNA, which revealed evidence of chronic inflammation and fibrosis but no malignancy, and exploratory surgery or clinical follow up failed to confirm malignancy in any patient. Indeed, six were treated successfully with corticosteroids. The lesson here? Beware the relatively young patient with apparent pancreatic carcinoma but who remains systemically well and has only inflammatory changes on cytology. Whether to opt for surgical exploration or consider steroids for possible AIP is the challenge.