Gastroenterology Symposium 2009

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The field of gastroenterology is progressing rapidly, with advances being made in both our understanding of disease process and the use of therapeutic technologies. This symposium highlighted emerging areas of clinical practice and research, with the emphasis on the application of evidence-based findings to the clinical management of patients.

'HOW I MANAGE'

The opening session offered advice on how to implement the latest evidence-based approaches into clinical practice. Professor Kevin Moore (University College London) detailed the importance of ascites in the natural history of cirrhosis: the onset of ascites is associated with a 50% two-year survival, and spontaneous bacterial peritonitis carries a 25% one-year survival. Using a real case to illustrate points, he explained that it is safe to drain ascites rapidly (up to 10 litres an hour) to a total of 25 litres, followed by a low salt diet and diuretic therapy. He outlined the importance of identifying and treating dehydration, sepsis, nephrotoxic drugs and parenchymal renal disease before assuming hepatorenal syndrome.

Dr Krish Ragunath (Nottingham Digestive Diseases Centre) highlighted the emerging strategies for managing Barrett's dysplasia. He emphasised the importance of detecting and accurately staging early dysplastic or neoplastic lesions. Trimodal imaging (combining high-resolution endoscopy, autofluorescence and narrow band imaging) offers a high detection rate with few false positives and endoscopic resection may offer an alternative to oesophagectomy for early lesions.[1] Radiofrequency ablation of the remaining Barrett's oesophagus has been shown to reduce the cancer risk with few adverse effects.

The final talk in this session addressed the inflammatory cholangiopathies, primary biliary cirrhosis and primary sclerosing cholangitis. Professor David Jones (Institute of Cellular Medicine, Newcastle) shared his approach to the management of the troublesome symptoms of itch and fatigue. Following exclusion of biliary obstruction, pruritus may be treated with step-wise use of cholestyramine, rifampicin, naltrexone and gabapentin. For fatigue, the exclusion of hypothyroidism, coeliac disease and pernicious anaemia may be followed by the use of modafenil (if excessive daytime sleepiness) or graded exercise programmes. Clinical studies examining the use of ursodeoxycholic acid in both conditions can be criticised and so its use remains controversial. However, Professor Jones outlined biological mechanisms that may support a role early in the disease process.

RECENT ADVANCES AND FUTURE PERSPECTIVES

Colorectal cancer shows familial clustering. Although a small number of high penetrance alleles have been identified (e.g. hereditary non-polyposis colorectal cancer or familial adenomatous polyposis), there is still a large degree of unexplained genetic risk. Professor Malcolm Dunlop (Colon Cancer Genetics Group, Edinburgh) explained the approach of genome-wide association studies which have identified ten new loci associated with bowel cancer.[2] The clustering of five genes within the same biological pathway suggests a pathophysiological role. Increased understanding of the genetics may allow us to tailor the intensity of surveillance and predict more individualised response to treatment.

In the Stanley Davidson Lecture, Dr Kel Palmer (Western General Hospital, Edinburgh) provided an overview of the recent advances in therapeutic endoscopy, from gastrointestinal bleeding to endoscopic retrograde cholangiopancreatography (ERCP). Using video clips, he discussed the emerging role of natural orifice therapeutic endoscopy (NOTES) and endoscopic ultrasound-guided therapy for draining pancreatic pseudocysts. He presented data from the recent nationwide survey of gastrointestinal bleeding[3] to show the reduction in mortality that has been achieved over the past decade through improved delivery of endoscopic therapy. However, he also highlighted areas for improvement: the lack of availability of out-of-hours endoscopy and a lack of confidence in the endoscopic management of bleeding varices remain a concern. Dr Palmer outlined strategies to improve this, including training more highly specialised endoscopists, establishing 'bleeding units' – analogous to coronary care units – and hospital networks to ensure universal access to emergency endoscopy.

MANAGING DIFFICULT INFLAMMATORY BOWEL DISEASE

The panel discussed challenging cases that demonstrated some of the difficulties of managing inflammatory bowel disease. The first case from Dr Shahida Din (Western General Hospital, Edinburgh) explored concerns over the use of biologics during pregnancy: although there are limited data to suggest infliximab may be used in pregnancy, opinions remain divided as to its safety. Dr David Watts (Forth Valley Hospitals) highlighted the difficulties in establishing a histological diagnosis in patients who cannot tolerate endoscopy and suggested a role for on-table endoscopy to assist surgical decision-making if the diagnosis is not clear.

SMALL BOWEL DISEASE MANAGEMENT ISSUES

Out of reach of conventional endoscopes, the investigation of the small bowel has presented a major challenge. Dr Ian Zealley (Ninewells Hospital, Dundee) reviewed the benefits and drawbacks of the imaging modalities currently available. Barium studies remain the most sensitive for early mucosal disease but are limited by tortuous and overlapping bowel, as well as use of ionising radiation. Ultrasound of the bowel can be a useful non-invasive test, but this is time-consuming and requires a highly specialised operator. Using illustrative images, Dr Zealley showed how magnetic resonance enterography can offer accurate assessment of disease extent, activity and extramural complications without exposure to ionising radiation and is likely to become the modality of choice in small bowel inflammatory bowel disease.

Dr Ian Arnott (Western General Hospital, Edinburgh) addressed non-radiological methods of assessing the small bowel. Faecal calprotectin levels reflect the influx of neutrophils into the mucosa and have a high negative predictive value in excluding organic bowel disease.[4] For the investigation of obscure gastrointestinal bleeding, wireless capsule endoscopy has emerged as the first-line investigation. Double balloon enteroscopy is more invasive but offers the potential for biopsy and therapeutic intervention.

SUMMARY

This symposium tackled some of the most challenging areas in modern gastroenterology and hepatology, combining expertise from physicians, surgeons and radiologists. The speakers provided valuable insights into their own current practices and offered an exciting vision of what may lie ahead. As a trainee, I was struck by the breadth of content, and the challenge facing gastroenterologists to integrate such a diverse range of emerging technologies and design our service to meet current needs.

REFERENCES

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