

NIGEL DAVID HEATON

Nationality: British

Place of Birth: Cheshire, England

Married with two children

Present appointment: Senior Surgical Registrar,
King's College Hospital,
Camberwell.

Senior Surgical Registrar number: TSE 9

Prizes and scholarships

Isle of Man Scientific Society Prize 1973.

John Collett Foundation Grant 1977 for student elective.

QUALIFICATIONS

- May 1978 MB, BS. King's College Hospital School of Medicine and Dentistry.
- June 1982 FRCS (England).

APPOINTMENTS

PRE-FELLOWSHIP APPOINTMENTS

- July 1978 - Jan 1979 House Surgeon, General Surgery and Orthopaedics King's College Hospital.
- Jan 1979 - July 1979 House Physician, Bromley Hospital.
- July 1979 - Feb 1980 Senior House Officer, Accident and Emergency King's College Hospital.
- Jan 1980 - March 1980 Locum Senior House Officer, Bromley Hospital.
- Nov 1980 - Oct 1981 Senior House Officer in General Surgery, The Brook Hospital.

SOCIETY MEMBERSHIP

British Medical Association

Royal Society of Medicine

Affiliated member of the Association of Surgeons of Great Britain and Ireland

Member of World Association of Hepato-Pancreatico-Biliary Surgery

British Society of Gastroenterology ordinary member membership number 05245.

European Society of Organ Transplantation.

GRANTS AND AWARDS

Ethicon Foundation Travelling scholarship 1992.

Royal College of Surgeons, New York Inc, Travelling Scholarship, 1992.

European College of Transplantation Hesperis Course 1992/3.

... and other bile duct anomalies, benign and malignant hepatic tumours, the complications of portal hypertension including porto-systemic shunting and latterly paediatric liver transplantation (with Mr Tan).

Whilst working for the Hepato-Biliary firm at King's I became involved at weekends and nights in liver transplantation, learning to retrieve donor organs and assisting with the recipient operation. For the past 2 years I have worked full-time on the Liver Transplant service and during this time the unit has transplanted over 250 patients. I have performed approximately 70 adult and paediatric liver transplants and have been responsible for the surgical care of the patients postoperatively.

Last year I was able to spend 4 months in the United States of America with the assistance of an Ethicon Scholarship and a Royal College of Surgeons, New York Inc, Travelling Scholarship from the Royal College of Surgeons of England visiting 6 of the leading liver transplant centres. These included the University of Nebraska Medical Centre, Omaha (Professor B. Shaw) for liver and pancreatic transplantation; the University of Chicago (Dr J. Emond) for living-related liver transplantation; the University of Minnesota, Minneapolis (Dr W. Payne) for liver transplantation; the University of California, San Francisco (Dr N. Ascher) for liver and living-related kidney transplantation and California Pacific Hospital, San

Francisco (Dr C. Esquivel) for liver transplantation and finally the University of Pittsburg (Dr J. Fung) to see liver and small bowel transplantation.

It was particularly valuable to see different technical variations that two centres used to avoid veno-venous bypass in liver transplantation and the wide variety of immunosuppression regimes used postoperatively. It was helpful to meet and get acquainted with several of the leading transplant surgeons and be able to discuss current developments such as xenografting and artificial liver support. I was able to see and learn the technical aspects of living-related liver transplantation and also isolated small bowel and combined liver and small bowel transplantation and follow the postoperative progress of these patients.

RESEARCH

SUMMARY OF RESEARCH PROJECT FOR AN M.S. THESIS

This 2 year project has been a continuation of work started by Mr E R Howard and Professor J R Garrett into neuronal abnormalities of the hindgut.

Neuro-histochemical, immuno-cytochemical, and ultrastructural techniques have been used to study the innervation of the hindgut in the developing human fetus, the 'normal' adult, and in patients with chronic constipation. A characteristic pattern of innervation was defined histochemically and ultrastructurally in developing and mature human ano-rectum. Ano-rectal biopsy specimens from children with chronic constipation were examined and a wide range of neuronal abnormalities were identified. A significant proportion of children with severe constipation responded to ano-rectal myectomy.

Colonic resection specimens from patients with severe bowel dysfunction have been assessed with the above techniques for abnormalities of innervation. Collaborative studies have been in progress with the Erasmus University and Sophia Hospital, Rotterdam using monoclonal antibodies to neurofilaments and fetal antigens and the results compared with histochemical studies of the same tissue. Techniques for VIP and substance P immunoreactivity have been developed.

Defaecating proctograms have been used to study ano-rectal function in children with chronic constipation and the findings correlated with the histochemistry of the ano-rectal smooth muscle innervation and clinical outcome.

Current research projects include an investigation into salivary proteins in chronic liver disease, serum nitric oxide levels in chronic liver disease and we have recently completed a randomised trial of T-tube versus no T-tube for liver transplantation.

TEACHING

For the past 10 years I have been involved in teaching medical students on junior and senior surgical firms. I have also given lectures to nursing and theatre staff, and postgraduate tutorials have been given to Surgical and Casualty medical staff at King's and to Regional and National courses on organ donation and liver transplantation. I have assisted at the Anastomosis work-shop of the Royal College of Surgeons teaching urological and gastro-intestinal anastomotic techniques and also assisted at the FRCS course at the Royal College of Surgeons from 1988 to 1991.

ADMINISTRATION

Junior Medical and Dental Staff Committee member at King's College Hospital.

Study leave sub-committee representative, King's College Hospital.

Senior Registrar representing the Junior Surgical staff at Division of Surgery meetings at the Royal Sussex County Hospital, Brighton.

Senior Registrar representative on the Division of Surgery Committee.

I attended the King's Fund College management course for Senior Registrars in June 1991. The course provided an overview of the past and possible future development of the National Health Service. The concept of Trust status and 'opting out' were discussed from political, medical and managerial viewpoints. More practical aspects of medical involvement in management were also covered.

CAREER OBJECTIVES

Consultant Hepato-biliary and Liver Transplant Surgeon in the United Kingdom.

My general surgical training has been wide, encompassing many aspects of surgery. The early emphasis was on jobs which gave good practical experience. More recently there has been a greater academic content which is reflected in an increasing number of publications.

Although primarily interested in the practical management of patients, I am keen to remain active intellectually as well as clinically and would wish to be involved in continuing research as a Consultant Surgeon.

SUMMARY OF EXPERIENCE AND TRAINING

CLINICAL

My surgical training began with 3½ years in busy district general hospital posts which provided wide experience in all aspects of general surgical practice. During this period I passed the FRCS and developed my clinical skills. In addition to performing all the common routine and emergency gastro-intestinal and general surgical operations I had the opportunity as a Registrar to learn about the investigation and management of adult colo-rectal problems, particularly function disorders, working for 16 months as an honorary clinical assistant at St Marks Hospital. This complemented my thesis research which was a clinical, neuropathological and functional investigation of congenital neuronal disorders affecting the hindgut of children.

I spent over three years gaining experience in vascular surgery including 6 months of my Senior Registrar rotation in Brighton which provided an excellent background for liver transplantation. As a middle grade Registrar I spent a year in a general Urology post (recognised for higher surgical training in Urology) and was able to gain expertise in paediatric surgery working as Registrar and Senior Registrar to Mr Howard.

During my Registrar and Senior Registrar attachments to Mr Howard, Mr Dawson and Professor Benjamin I became interested in paediatric and adult hepato-biliary surgery. The Senior Registrar post at King's provided a unique experience of the management of complex hepato-biliary problems referred to the Department of Surgery and the Institute of Liver Studies. Working for Mr Howard I was also involved with the care and management of specialised paediatric problems which included biliary atresia and other bile duct anomalies, benign and malignant hepatic tumours, the complications of portal hypertension including porto-systemic shunting and latterly paediatric liver transplantation (with Mr Tan).

Whilst working for the Hepato-Biliary firm at King's I became involved at weekends and nights in liver transplantation, learning to retrieve donor organs and assisting with the recipient operation. For the past 2 years I have worked full-time on the Liver Transplant service and during this time the unit has transplanted over 250 patients. I have performed approximately 70 adult and paediatric liver transplants and have been responsible for the surgical care of the patients postoperatively.

Last year I was able to spend 4 months in the United States of America with the assistance of an Ethicon Scholarship and a Royal College of Surgeons, New York Inc, Travelling Scholarship from the Royal College of Surgeons of England visiting 6 of the leading liver transplant centres. These included the University of Nebraska Medical Centre, Omaha (Professor B. Shaw) for liver and pancreatic transplantation; the University of Chicago (Dr J. Emond) for living-related liver transplantation; the University of Minnesota, Minneapolis (Dr W. Payne) for liver transplantation; the University of California, San Francisco (Dr N. Ascher) for liver and living-related kidney transplantation and California Pacific Hospital, San

PUBLICATIONS

BOOK CHAPTERS

N D Heaton, J R Garrett, E R Howard. The Enteric Nervous System: Structure and Pathology. In: Autonomic Failure. Ed: Sir Roger Bannister. Oxford University Press. 1988: 238-63.

J L Dawson, N D Heaton, Liver abscess. *Surgery* 1991; 9: 2116-9.

N D Heaton, J L Dawson. Carcinoma of the biliary tree and gallbladder carcinoma. *Surgery* 1992; 10: 84-8.

Surgery of Liver Disease in Children. Editor E R Howard. Butterworth-Heinemann, Oxford. 1991. 1st Edition.

Chapter 9. E R Howard and N D Heaton. Benign extra-hepatic bile duct obstruction: 94-101.

Chapter 11. N D Heaton and E R Howard. Tumours of the extra-hepatic bile ducts: 107-14.

Chapter 12. E R Howard and N D Heaton. Haemangiomas: 115-25.

Chapter 13. E R Howard and N D Heaton. Liver tumours in children: 126-42.

Chapter 18. N D Heaton and E R Howard. The complications of portal hypertension: 181-92.

Royal College of Surgeons of England: for the FRCS exams annotated references: Hepato-Biliary surgery. E R Howard and N D Heaton. The Royal College of Surgeons of England.

PUBLISHED PAPERS

N D Heaton, J A Rennie, E R Howard, J L Dawson. 'Stress ulceration and haemorrhage of the colon.' Proceedings of the Royal College of Surgeons, Ireland, Bicentenary Meeting. 1984. Published as Proceedings of the Meeting.

N D Heaton, C Kadow, A J Yates-Bell. Late presentation of congenital posterior urethral valves. *British Journal of Urology* 1989; 64: 98.

N D Heaton, B Hogan, M Michell, R Thompson, A J Yates-Bell. Tuberculous epididymo-orchitis: clinical and ultrasound observations. *British Journal of Urology* 1989; 64: 305-9.

- N D Heaton, A Severn, J A Rennie. Atypical presentation of tuberculosis following longterm haemodialysis. *British Journal of Urology* 1989; 64: 433-4.
- N D Heaton, C Kadow, D A Packham. Nodular periorchitis. *British Journal of Urology* 1989; 64: 546.
- C Kadow, N D Heaton, T Paes, A J Yates-Bell, D A Packham. Adenocarcinoma in a substitution caeco-cystoplasty. *British Journal of Urology* 1989; 63: 649-50.
- N D Finokaliotis, N D Heaton, J A Rennie. Delorme's procedure for complete rectal prolapse in the elderly. *Iatpika Hronika* 1989; 1B (10): 837-8.
- N D Heaton, J P Pryor. Vasa aplasia and cystic fibrosis. *British Journal of Urology* 1990; 66: 538-40.
- A Stewart, N D Heaton, B A Hogbin. Body packing: a case report and review of the literature. *Postgraduate Medical Journal* 1990; 66: 659-61.
- G Nicholls, N D Heaton, A Lewis. The use of bacteriology in ano-rectal sepsis as an indicator of anal fistula: A District General Hospital's experience. *Journal of the Royal Society of Medicine* 1990; 83: 625-6.
- N D Heaton, C Kadow, A Y Yates-Bell. Inverted papilloma of the urethra. *British Journal of Urology* 1990; 66: 661-2.
- H Taylor, N D Heaton, P Farrands, N Kirkham, M Fletcher. Elevated Human Chorionic Gonadotrophin (HCG) levels in a patient with pancreatic carcinoma presenting with a testicular metastasis. *Postgraduate Medical Journal* 1990; 66: 1073-5.
- N D Heaton, J R Garrett, E R Howard. Small Left colon syndrome: a histochemical study indicative of an immature enteric plexus. *Journal of The Royal Society of Medicine* 1991; 84: 113-4.
- N D Heaton, A Page, E R Howard. Malignant retroperitoneal schwannoma. *Journal of the Royal Society of Medicine* 1991; 84: 308-9.
- J Pain, N D Heaton, J Karani, E R Howard. The role of selective arterial embolisation in the treatment of liver trauma. *Annals of the Royal College of Surgeons, England* 1991; 73: 189-93.
- M Davenport, N D Heaton, E R Howard. Spontaneous perforation of the common bile duct. *British Journal of Surgery* 1991; 78: 1068-70.
- N D Heaton, J Pain, N Cowan, J Salisbury, E R Howard. Does sickle cell disease predispose to focal nodular hyperplasia? *Archives of Diseases in Childhood* 1991; 66: 1073-4.

- L E Allen, N D Heaton, P A E Hurst. Pyoderma gangrenosum: an association with Hodgkin's disease. *Journal of Clinical and Experimental Dermatology* 1991.
- N D Heaton, H Khawaja, E R Howard. The management of duodenal varices. *British Journal of Surgery* 1991; 78: 1450-1.
- N D Heaton, M Davenport, E R Howard. Intraluminal biliary obstruction. *Archives of Diseases in Childhood* 1991; 66: 1395-8.
- N D Heaton, C Kadow, J P Pryor. Rhabdomyosarcoma of the bladder base in two older children. *British Journal of Urology* 1992; 69: 208-9.
- N D Heaton, M Davenport, E R Howard. Symptomatic hemorrhoids and ano-rectal varices in children with portal hypertension. *Journal of Pediatric Surgery* 1992; 27: 833-5.
- N D Heaton, G Adam, E R Howard. The Late Presentation of Postero-lateral Congenital Diaphragmatic Hernias. *Postgraduate Medical Journal* 1992; 68: 445-8.
- R Mondragon, V Vougas, N D Heaton, G Mieli-Vergani, A P Mowat, J O'Grady, K C Tan, Roger Williams. Orthotopic liver transplantation for fulminant hepatic failure in children. *Transplantation International* 1992; 5: S206-8.
- N D Heaton, A S Reece, K C Tan. Graft-versus-host disease in liver transplantation. *Journal of the Royal Society of Medicine* 1992; 85: 313-4.
- K.C. Tan, R Mondragon, V Vougas, G Mieli-Vergani, N D Heaton, A P Mowat, J Chiyende, A Baker, G Koukoulis, B Portmann, Roger Williams. Results of liver transplantation in fulminant hepatic failure and late onset hepatic failure in children. *British Journal of Surgery* 1992; 79: 1192-4.
- N D Heaton, A Yates-Bell. 30 year follow up of lymphogranuloma venereum. *British Journal of Urology* 1992; 70: 693-4.
- N D Heaton, E R Howard. The complications and limitations of injection sclerotherapy in portal hypertension. *Gut* 1993; 34: 7-10.
- R Alwyn, N D Heaton, M Davenport, M Driver, E R Howard. Xanthogranulomatous cholecystitis in a 10 year old boy. *Pediatric Surgery International* 1993; 8: 170-2.
- Papers accepted for publication: in press.
- N D Heaton, T Doyle, B Hogbin. Resolution of circumferential gastric soft tissue mass. *Clinical Radiology* 1990.
- N D Heaton, N Kirkham. Multiple granular cell tumours in successive generations.

- Journal of Clinical and Experimental Dermatology 1991.
- N D Heaton, M Davenport, J P Pryor. Fertility following bilateral orchidopexy at the age of 24 years. *British Journal of Urology* 1991.
- M Davenport, L Hansen, N D Heaton, E R Howard. Haemangio-endothelioma of the liver in childhood. *Journal of Pediatric Surgery* 1991.
- R Mondragon, J B Karani, N D Heaton, S Thomas, P Y N Wong, J O'Grady, K C Tan, Roger Williams. The use of percutaneous transluminal angioplasty in hepatic artery stenosis after transplantation. *Transplantation* 1991.
- N D Heaton, E R Howard. Surgical rescue of the complications of injection sclerotherapy in children. *Pediatric Surgery International* 1992.
- N D Heaton, M Davenport, E R Howard. Incidence of haemorrhoids and ano-rectal varices in children with portal hypertension. *British Journal of Surgery* 1992.
- M. Rela, N D Heaton, V Vougas, N Rolando, J Wade, Roger Williams, K C Tan. Fungal infection associated with gangrene of the abdominal wall following liver transplantation. *Postgraduate Medical Journal* 1992.
- M Rela, N D Heaton, J Chiyende, A P Mowat, G Mieli-Vergani, B Portmann, Roger Williams, K C Tan. Orthotopic liver transplantation for the hepatic complications of Wilson's Disease. *British Journal of Surgery* 1992.
- N D Heaton, M Davenport, E R Howard. Congenital hepato-portal arterio-venous fistula of the liver. *Surgery* 1992.
- C K Yeung, M Rela, N D Heaton, B Portmann, G Mieli-Vergani, A P Mowat, R Williams, K C Tan. Liver transplantation after 'successful' Kasai porto-enterostomy: evidence that liver decompensation results from fibrotic encasement of central normal liver. *Pediatric Surgery International* 1992.
- Paper submitted:-
- N D Heaton, J R Garrett, E R Howard. Surgical management of chronic constipation in children: the value of ano-rectal myectomy. *British Journal of Surgery* 1993.
- J H C Meijers, D Tibboel, A W M Van der Kamp, J L Gaillard, N D Heaton and J C Molenaar. The effect of ischaemia on the developing enteric nervous system: an experimental study in the chicken embryo and a clinical study in humans. *Pediatric Research* 1992.
- N D Heaton, E R Howard. Late presentation of colonic liver metastases 10 years after surgical resection. *Journal of the Royal Society of Medicine* 1993.

- C Hoskins, C McGuinness, N D Heaton. Portal pyaemia following diverticulitis. *Clinical Radiology* 1992.
- N D Heaton, J R Garrett, E R Howard. The innervation of the human internal anal sphincter: a histochemical study. *Journal of Anatomy* 1993.
- A Stewart, N D Heaton, P A E Hurst and N Kirkham. Colonic haemorrhage in chronic renal failure; diagnostic difficulties. *Scottish Medical Journal* 1993.
- N D Heaton, J Karani, E R Howard. Portal vein obstruction and duodenal atresia: an association? *Archives of Diseases in Childhood* 1993.
- S C A Fraser, H Khawaja, N D Heaton. Measuring the outcome of minor surgery. *Lancet* 1993.
- J Devlin, N D Heaton, R Palmer, S. Moncada, K C Tan, Roger Williams. Nitric oxide production: A stable and predictive parameter of acute allograft rejection. *New England Journal of Medicine* 1993.
- M Rela, N D Heaton, S Reece, J Karani, K C Tan. Obstructive jaundice secondary to anomalous cystic duct insertion. *Pediatric Surgery International* 1992.
- N D Heaton, S Reece, P Donaldson, R Mondragon, G Mieli-Vergani, M Leyton, A P Mowat, Roger Williams, K C Tan. Graft-versus-host following liver transplantation. Report of two cases and review of the literature. *Transplantation Proceedings* 1992.
- M Peakman, N D Heaton, K C Tan, D Vergani. Development of techniques for obtaining monodispersed human islet cells. 1993.
- Papers in preparation:
- J A Wendon, P M Harrison, J O'Grady, N D Heaton, K C Tan, Roger Williams. The effects of orthotopic liver transplantation and hepatectomy on oxygen transport variables and systemic haemodynamics in fulminant hepatic failure. 1993.
- N D Heaton, J R Garrett, E R Howard. The developing human internal anal sphincter: a histochemical and ultrastructural study. *Gut* 1993.
- N D Heaton, J Karani, G Vergani, A P Mowat, J Pritchard, E R Howard. Rhabdomyosarcoma of the biliary tree: four cases and review of the literature. *Journal of Pediatric Surgery*.
- N D Heaton, N Cowan, J Karani, J Salisbury, G Mieli-Vergani, J Pritchard, A P Mowat and E R Howard. Surgical management of mesenchymal hamartoma of the liver. *Archives of Disease in Childhood*.
- N D Heaton, J Karani, E R Howard. Aetiology of Portal vein occlusion: a

radiological and clinical study.

N D Heaton, V Vougas, R Palmer, S Moncada, K C Tan, Roger Williams. Systemic nitric oxide levels in liver disease and portal hypertension.

PUBLISHED ABSTRACTS

J R Rennie, N D Heaton, E R Howard, J L Dawson. Stress ulceration and haemorrhage of the colon. *Br. J Surg.* 1984; 71: 1006.

N D Heaton, E R Howard. Ano-rectal myectomy: a valuable treatment for chronic constipation. *Gut* 1985; 26: A1130.

N D Heaton, J R Garrett, E R Howard. A Neuro-histochemical Study of the internal anal sphincter. *J. Pathol.* 1986; 148: 120A.

N D Heaton, J R Garrett, E R Howard. Hyperganglionosis of the hindgut: a cause of severe bowel dysfunction. *J. R. Soc. Med.* 1986; 79: 684.

N D Heaton, J R Garrett, E R Howard. Ganglion cells in the human internal anal sphincter. *Gut* 1986; 27: A1241.

N D Heaton, J R Garrett, E R Howard. Bowel dysfunction in the presence of ganglion cells. *Gut* 1986; 27: A1258.

N D Heaton, J R Garrett, E R Howard. Histo-pathology of chronic constipation. *Gut* 1987; 28: A1364.

J R Garrett, N D Heaton, E R Howard. The value of histochemistry in the diagnosis and understanding of neuronal disorders of the hindgut. *Gegenbaurs morphol. Jahrb. Leipzig.* 1989; 135: 317.

M Rela, N D Heaton, R Mondragon, et al. Orthotopic liver transplantation for the hepatic complications of Wilson's disease. *Gut* 1992; 33: 554. F216.

V Vougas, N D Heaton, R Mondragon, J O'Grady, R Williams, KC Tan. Orthotopic liver transplantation for primary hepatic malignancy. *HPB Surgery* 1992; 5: 92.

V Vougas, N D Heaton, R Mondragon, J O'Grady, R Williams, KC Tan. Biliary reconstruction in orthotopic liver transplantation. *HPB Surgery* 1992; 5: 92.

LETTERS TO EDITORS OF JOURNALS

- Wound closure: Absorbable vs Non-absorbable sutures. *Dis. Colon Rectum* 1985; 28: 759. N D Heaton.
- Colonic ulceration and haemorrhage in renal transplantation
J. R. Soc. Med. 1985; 78: 882. N D Heaton.
- Tomography Scan was unnecessary. *Hospital Doctor* 1986; C6 Nol: II. N D Heaton.
- A Fluorochromic stain for Nucleic acids to demonstrate submucosal and myenteric neurons in Hirschsprung's disease. *Am. J. Clin. Path.* 1986; 86: 260. N D Heaton, J R Garrett, E R Howard.
- Aetiology of Antral Vascular Malformation. *J. R. Soc. Med.* 1986; 79: 434. N D Heaton.
- Neuron-specific enolase immunostaining of aganglionic bowel. *J Pediatr. Surg.* 1986; 21: . N D Heaton, J R Garrett, E R Howard.
- Extended abdominal rectopexy. *Br. J Surg.* 1988; 75: 828. N D Heaton.
- Duodenal erosion complicating an implanted hepatic arterial catheter. *Br. J. Surg.* 1988; 75: 931. N D Heaton.
- Use of gracilis and rectus abdominis transposition flaps in persisting perineal sinuses. *Br. J. Surg.* 1989; 76: 525. N D Heaton, A W Clark.
- Portal vein thrombosis in myeloproliferative disease. *Br. Med. J.* 1990; 300: 945. N D Heaton, J Karani, E R Howard.
- Pyoderma gangrenosum with severe pharyngeal ulceration responding to sulphamethoxypyridine. *J. R. Soc. Med.* 1991; 84: 125. N D Heaton.
- Ano-rectal sepsis: use of bacteriology. *J. R. Soc. Med.* 1991; 84: 125. N D Heaton.
- Strangulated femoral hernias: the clinical trap. *Postgrad. Med. J.* 1991; 67: 776. H Khawaja, N D Heaton.
- Importance of unilateral absence of the vasa. *Br. J. Surg.* 1991; 78: 1510. N D Heaton, J N Nawrocki.

PRESENTATIONS

November 1982 Clinico-pathological meeting of the Surgical section, The Royal Society of Medicine. A case of diffuse angiodysplasia of the gastric Antrum. N D Heaton, A P Wyatt.

September 1984 Association of Surgeons meeting at the International surgical scientific conference, Royal College of Surgeons of Ireland Bicentenary 1984. Stress ulceration and haemorrhage of the colon. N D Heaton, J A Rennie, E R Howard, J R Dawson.

Presentations at Great Ormond Street paediatric surgical meetings:

April 1985 Ano-rectal myectomy in the treatment of constipation. An alternative method of central venous feeding.

April 1986 Small left colon syndrome.

April 1987 Hyperganglionosis

May 1990 Rhabdomyosarcoma of the biliary tree.

May 1991 The surgical management of chronic constipation: the value of ano-rectal myectomy.

June 1985 Paediatric department, Sophia Hospital and Erasmus University, Rotterdam. Hypoganglionosis of the hindgut.

January 1986. Society of Pathologists of Great Britain and Northern Ireland Annual Meeting. A Neuro-histochemical Study of the Internal Anal Sphincter of Man. N D Heaton, J R Garrett, E R Howard.

January 1986. Surgical section, The Royal Society of Medicine. Hyperganglionosis of the hindgut: a cause of severe bowel dysfunction. N D Heaton, J R Garrett, E R Howard.

September 1986. British Society of Gastroenterology. Bowel dysfunction in the presence of ganglion cells. N D Heaton, J R Garrett, E R Howard.

January 1987. Annual Meeting of the Histochemistry Society. Histochemical Features of the Human Internal Sphincter. N D Heaton, J R Garrett, E R Howard.

September 1988. International meeting of the Histochemistry Society. The value of histochemistry in the diagnosis and understanding of neuronal disorders of the hindgut. N D Heaton, J R Garrett, E R Howard.

February 1989. Urological section, The Royal Society of Medicine. Vasa aplasia and cystic fibrosis. N D Heaton, J P Pryor.

July 1990. British Association of Paediatric Surgeons. 37th Annual International Congress. Surgery for the complications of oesophageal sclerotherapy. N D Heaton, E R Howard.

- November 1990. Hepato-Pancreato-Biliary society meeting. Inspissated bile plug syndrome. N D Heaton, E R Howard.
- February 1991. Clinical section, The Royal Society of Medicine. Malignant retroperitoneal schwannoma. N D Heaton, E R Howard.
- March 1991. Clinical section, The Royal Society of Medicine. Giant retroperitoneal lipoma in a child. N D Heaton, E R Howard.
- April 1991. Association of Surgeons of Great Britain and Ireland. Surgical management of chronic constipation in children: the value of ano-rectal myectomy. N D Heaton, J R Garrett, E R Howard.
- July 1991. Annual International Congress. British Association of Paediatric Surgeons:
- Ano-rectal varices in children with portal hypertension. N D Heaton, M Davenport, E R Howard.
- The management of hepatic haemangiomas in children. E R Howard, M Davenport, N D Heaton.
- October 1991 Clinical section of the Royal Society of Medicine. Does sickle cell disease predispose to focal nodular hyperplasia? N D Heaton, E R Howard.
- Joint Annual Scientific Meeting of the Royal College of Radiologists. Dublin 1991. Integrated imaging in the pre-operative assessment of paediatric liver tumours: correlation between radiological and operative findings of 50 cases. N C Cowan, N D Heaton, R Given-Wilson, G Mieli-Vergani, E R Howard, J B Karani.
- October 1991. 5th Congress of the European Society for Organ Transplantation. N D Heaton, A S Reece, G Mieli-Vergani, N Jamieson, E Sokol, M Leyton, P Friend, R Mondragon, A Mowat, R Williams, R Y Calne, J B Otte, K C Tan. A multi-centre analysis of graft versus host disease after liver transplantation.
- November 1991 Presentation at the Hammersmith Hepato-Pancreato-Biliary meeting, British section of the World Association of Hepato-Pancreato-Biliary Surgery:-
- Haemorrhoids and ano-rectal varices in children with portal hypertension. N D Heaton, M Davenport, E R Howard.
- The management of haemanagioendothelioma of the liver in children. M Davenport, N D Heaton, E R Howard.
- March 1992 British Society of Gastroenterology. Orthotopic liver transplantation for the hepatic complications of Wilson's Disease. M Rela, N D Heaton, R Mondragon, A P Mowat, G Mieli-Vergani, Roger Williams, K C Tan.

- April 1992. Association of Surgeons of Great Britain and Ireland. Orthotopic Liver Transplantation for primary hepatic malignancy and carcinoid. N D Heaton, R Mondragon, V Vougas, J O'Grady, Roger Williams, K C Tan.
- April 1992. Association of Surgeons of Great Britain and Ireland. Incidence of haemorrhoids and ano-rectal varices in children with portal hypertension. N D Heaton, M. Davenport, E R Howard.
- April 1992. British Paediatric Association. Aetiology, prognostic indicators and role of orthotopic liver transplantation (OLT) in childhood acute hepatic failure (AHF). B. Bhaduri, J Y N Lau, N D Heaton, et al.
- May 1992. Paediatric section, The Royal Society of Medicine. Liver transplantation for fulminant hepatic failure in neonates. M Rela, V Vougas, N D Heaton, et al.
- July 1992. Annual International Congress. British Association of Paediatric Surgeons. Portal vein obstruction: aetiology and natural history. M Davenport, N D Heaton, E R Howard.
- April 1992. 18th PanHellenic Surgical Congress. P Hadjicostas, V Vougas, N Heaton, K C Tan, D Sherlock. Are livers from donors over 50 years of age suitable for transplantation.
- January 1993. Invited speaker at a Symposium on Impossible Gastroenterology at The Royal Society of Medicine. Small bowel transplantation.
- February 1993. South-East Thames Association of Surgeons in Training Study day. Liver transplantation in children: the use of reduced grafts. N Heaton, M Corbally, M Rela, H Hajj, K C Tan.
- July 1993. British Association of Paediatric Surgery. Orthotopic liver transplantation (OLTx) for fulminant hepatic failure (FHF) in children. M Corbally, M Rela, N Heaton, C Bail, G Mieli-Vergani, A P Mowat, Roger Williams, K C Tan.
- July 1993. European Society of Radiology. S F Haigh, S J King, N D Heaton, K C Tan, J Karani. Paediatric liver transplantation: Review of surgical techniques and radiological complications.
- July 1993. HPB Meeting, Paris: 1st European Congress. V Vougas, N D Heaton, M Rela, E Gane, Roger Williams, K C Tan. Use of T-tube stent in biliary reconstruction during orthotopic liver transplantation - a prospective randomised controlled trial.
- July 1993. HPB Meeting, Paris: 1st European Congress. K C Tan, N D Heaton, A Khagani, M Pepys, Roger Williams, M Yacoub. Combined heart-liver transplantation: refinements in surgical technique.

Demonstrations/Posters

- September 1985. British Society of Gastroenterology. Ano-rectal myectomy: A variable treatment for chronic constipation. N D Heaton, J R Garrett, E R Howard.
- October 1985. London Gastro-intestinal Science Group:-
 The internal anal sphincter: a histochemical investigation. N D Heaton, J R Garrett, E R Howard.
 Ano-rectal myectomy: a valuable treatment for chronic constipation. N D Heaton, J R Garrett, E R Howard.
- July 1986. British Association of Paediatric Surgeons. The histochemistry of human internal anal sphincter in the fetus. N D Heaton, J R Garrett, E R Howard.
- September 1986. British Society of Gastroenterology. Ganglion cells in the human internal anal sphincter. N D Heaton, J R Garrett, E R Howard.
- May 1987. Joint Thames Regions Jubilee Gastroenterology Meeting. The developing human internal anal sphincter: A histochemical study. N D Heaton, J R Garrett, E R Howard.
- September 1987. British Society of Gastroenterology. A histo-pathological study of severe constipation. N D Heaton, J R Garrett, E R Howard, P Kluck, D S Tibboel.
- June 1990. World Association of Hepato-Pancreatico-Biliary Surgery:-
 Rhabdomyosarcoma of the biliary tree: a review of 4 cases.
 Surgery for complications of injection sclerotherapy for gastro-oesophageal variceal bleeding.
- April 1992. Associations of Surgeons of Great Britain and Ireland. Liver transplantation for fulminant hepatic failure and late onset hepatic failure.* R Mondragon, V Vougas, N D Heaton, et al.
- June 1992. World Association of Hepato-Pancreato-Biliary Surgery, Hongkong:-
 Biliary reconstruction in orthotopic liver transplantation. V Vougas, N D Heaton, R Mondragon, J O'Grady, Roger Williams, K C Tan.
 Orthotopic Liver Transplantation for primary hepatic malignancy.
 V Vougas, N D Heaton, R Mondragon, J O'Grady, Roger Williams, K C Tan.
- July 1992. Annual International Congress. British Association of Paediatric

SUMMARY OF EXPERIENCE AND TRAINING

CLINICAL

My surgical training began with 3½ years in busy district general hospital posts which provided wide experience in all aspects of general surgical practice. During this period I passed the FRCS and developed my clinical skills. In addition to performing all the common routine and emergency gastro-intestinal and general surgical operations I had the opportunity as a Registrar to learn about the investigation and management of adult colo-rectal problems, particularly function disorders, working for 16 months as an honorary clinical assistant at St Marks Hospital. This complemented my thesis research which was a clinical, neuro-pathological and functional investigation of congenital neuronal disorders affecting the hindgut of children.

I spent over three years gaining experience in vascular surgery including 6 months of my Senior Registrar rotation in Brighton which provided an excellent background for liver transplantation. As a middle grade Registrar I spent a year in a general Urology post (recognised for higher surgical training in Urology) and was able to gain expertise in paediatric surgery working as Registrar and Senior Registrar to Mr Howard.

During my Registrar and Senior Registrar attachments to Mr Howard, Mr Dawson and Professor Benjamin I became interested in paediatric and adult hepato-biliary surgery. The Senior Registrar post at King's provided a unique experience of the management of complex hepato-biliary problems referred to the Department of Surgery and the Institute of Liver Studies. Working for Mr Howard I was also involved with the care and management of specialised paediatric problems which included biliary atresia and other bile duct anomalies, benign and malignant hepatic tumours, the complications of portal hypertension including porto-systemic shunting and latterly paediatric liver transplantation (with Mr Tan).

Whilst working for the Hepato-Biliary firm at King's I became involved at weekends and nights in liver transplantation, learning to retrieve donor organs and assisting with the recipient operation. For the past 2 years I have worked full-time on the Liver Transplant service and during this time the unit has transplanted over 250 patients. I have performed approximately 70 adult and paediatric liver transplants and have been responsible for the surgical care of the patients postoperatively.

Last year I was able to spend 4 months in the United States of America with the assistance of an Ethicon Scholarship and a Royal College of Surgeons, New York Inc. Travelling Scholarship from the Royal College of Surgeons of England visiting 6 of the leading liver transplant centres. These included the University of Nebraska Medical Centre, Omaha (Professor B. Shaw) for liver and pancreatic transplantation; the University of Chicago (Dr J. Emond) for living-related liver transplantation; the University of Minnesota, Minneapolis (Dr W. Payne) for liver transplantation; the University of California, San Francisco (Dr N. Ascher) for liver and living-related kidney transplantation and California Pacific Hospital, San