91

Adult polycystic kidney disease can obstruct

D.C. Hanbury*, C.G. Winearls+ and D. Cranston* *Departments of Urology* and Nephrology+, The Oxford Radcliffe Hospital Trust, The Churchill Hospital, Old Road, Headington, Oxford OX3 7LJ*

Introduction: Adult polycystic kidney disease (APKD) is a common cause of end-stage renal failure and is usually slowly progressive. Although sepsis and obstruction by renal calculi or clots are recognized causes of acute deterioration of renal function, compression by the cysts themselves causing obstruction has not been described.
Patients and methods: Compression was the probable cause of obstruction in four patients with APKD who presented with loin pain and/or deteriorating renal function. Because ultrasonography, CT and isotope renography are difficult to interpret in patients with distorted cystic kidneys and chronic renal failure, all were treated by retrograde insertion of JJ stents. Two patients had gross medial displacement of the ureter on imaging.
Results: All three patients with pain were relieved by stenting. There was an improvement in renal function in three such that dialysis was avoided. The stents were subsequently removed without causing any recurrence of pain or worsening of renal function.
Conclusion: This series represents clinical evidence for obstruction associated with APKD. The precise cause remains obscure although the medially deviated ureters would suggest compression. Nephrologists and urologists should therefore consider urinary obstruction in such patients, even if renal function is already poor, and should have a low threshold for recommending retrograde ureteropyelography and JJ stenting.

92

The use of capsaicin in the management of the loin pain/haematuria syndrome

M.I. Bultitude and J.D.D. Allan *St Thomas Hospital, Lambeth Palace Road, London SE1 7EH*

Introduction: Capsaicin has the known property of first causing excitation and then prolonged deactivation of 'C' fibres, which mediate pain. The loin pain/haematuria syndrome (LPHS) results in prolonged episodes of pain, usually requiring high doses of opioid analgesics for pain relief.
Patients and methods: The investigation and treatment of a consecutive series of patients with the LPHS is reported. After preliminary screening, pain was 'localized' to the kidney by insertion of a Stamey catheter up to the renal pelvis without anaesthetic, followed by distension of the pelvis with contrast medium under radiographic control. Confirmation of the site of pain was then followed by irrigation of the pelvis with local anaesthetic solution to assess pain relief. On a separate occasion under general or spinal anaesthesia, the renal pelvis was irrigated using the same technique with a solution of capsaicin for 30 min. A total of 30 treatment episodes in 20 patients is available for analysis to date. Some patients underwent treatment of both upper tracts, and in some treatment was repeated when pain returned. The results of the 'localization' techniques are reported.
Results: Following treatment, with two exceptions, all patients have had good pain relief with a mean duration of 3 months and (except for those with contralateral pain) have stopped regular analgesic use. Increased pain for 48 h following treatment requires careful control. No decrease in renal function occurred.
Conclusion: Thus far, capsaicin treatment has been highly effective in relieving pain in the medium-term in patients with the LPHS.

93

How safe is conservative surgery for upper urinary tract tumours?

K. Mohan-Pillai, K. Doumas, G. Smith and D.A. Tolley *Scottish Lithotriptor Centre, Western General Hospital, Edinburgh*

Introduction: A review of 101 patients undergoing treatment for TCC of the upper urinary tract was performed to assess peri-operative morbidity, mortality and short-term tumour control.
Patients and methods: Eighty patients were managed by conventional (65) or laparoscopic (15) nephroureterectomy, 16 underwent conservative procedures (ureteroscopic 10, percutaneous resection 3, segmental resection 3). Five patients had inoperable disease and were excluded from further review.
Results: The mean hospital stay was 14 days for the conventionally managed group, 6 days for the laparoscopic group and 3 days for those treated endoscopically. Five patients have died (post-operative myocardial infarct 1, late renal failure 1, cancer related 3). The morbidity in those undergoing conventional surgery was highest (re-exploration for bleeding 2, deep vein thrombosis 4, chest and wound-related problems 9); one patient in the laparoscopic group required urgent conversion and one suffered a prolonged ileus. Ureteric perforation (1) and late PUJ obstruction occurred in two patients managed endoscopically. Six patients in whom the initial management was by ureteroscopy eventually required nephroureterectomy for high-grade or multifocal disease, despite the initial evaluation which suggested suitability for this type of treatment.
Conclusion: Although a laparoscopic procedure has certain benefits for the patients in terms of lower morbidity and a shorter hospital stay, a wholly endoscopic approach must be used with caution, as there appears to be a significant risk of understaging and undertreating the disease.

94

Thoraco-abdominal extra-peritoneal approach for the excision of retro-peritoneal tumours

R. Walker, A. Thompson and T. Christmas *Charing Cross Hospital, London*

Introduction: Large retro-peritoneal tumours can be removed via anterior or thoraco-abdominal trans-peritoneal approaches, both of which may be complicated by paralytic ileus necessitating a prolonged in-patient stay. We have prospectively evaluated a thoraco-abdominal extra-peritoneal (TAE-P) approach for excision of large tumour masses.
Patients and methods: A consecutive series of 88 patients (66 male, 22 female; mean age 40 years) underwent TAE-P tumour excision. The primary tumour was upper pole renal adenocarcinoma ($n = 21$), metastatic testicular tumour ($n = 44$), primary retro-peritoneal teratoma ($n = 14$), retro-peritoneal sarcoma ($n = 3$), adrenal tumour ($n = 1$) and exposure of the spine for excision of metastases and neurosurgical spinal fixation ($n = 5$). Thoracic metastases were present in 21 cases (retro-crural nodes $n = 14$, pulmonary metastases $n = 9$). The thoracic cavity was entered through the 8th rib and the diaphragm split as far as the tendinous portion. Pulmonary metastases were removed by wedge resection and retro-crural nodes removed through the thoracic cavity. The peritoneum was reflected medially to approach the great vessels and distal dissection continued as a paramedian incision. The tumour mass was then removed en bloc, including the kidney in 29 patients. A chest drain was left *in situ* for 48h post-operatively and regional anaesthesia was effected by injection of bupivicaine via a fine-gauge intra-pleural cannula.
Results: There was no mortality. The mean per-operative blood loss was 700 mL (range 0·1–5 L). Secondary haemorrhage occurred in two patients and two developed chest infections. There were no cases of paralytic ileus.
Conclusion: The TAE-P approach provides safe access for removal of large retro-peritoneal tumours and intra-thoracic metastatic disease. Morbidity is low and recovery time quick, due to the lack of paralytic ileus and effective analgesia administered through an intra-pleural cannula.

95

Laparoscopic extraperitoneal fibrin-glued pyeloplasty: medium-term results

C.G. Eden, K.H.A. Murray and R.K. Carruthers *Kent and Canterbury Hospital, Canterbury, Kent*

Introduction: The best long-term results for the treatment of PUJ obstruction are still obtained by open pyeloplasty. However, this entails the infliction of a painful wound, which prolongs hospitalization, prevents a return to normal activities for 8–12 weeks, is unsightly and may lead to morbidity in its own right. An experimental study by the first author confirmed the feasibility of performing dismembered pyeloplasty using a laparoscopic extraperitoneal approach and the advantages of the use of fibrin glue for the anastomosis over gelatin-resorcin glue, laser tissue welding and sutures.
Patients and methods: Laparoscopic extraperitoneal dismembered pyeloplasty was attempted in nine patients with PUJ obstruction using a balloon-dissecting four-port technique. Following excision of redundant renal pelvic tissue and spatulation of the stented ureter, interrupted 4/0 polyglactin 910 sutures were inserted 7 mm apart to approximate the urothelium. The reconstructed PUJ was then coated with a layer of fibrin glue.
Results: The procedure was possible in eight of the nine cases attempted, with a mean operating time of 185 min (range 150–230). This compares favourably with the duration of 370 min (range 210–480) for the eight patients who have undergone laparoscopic dismembered pyeloplasty reported in the literature. A fibrotic and shortened upper ureter due to retroperitoneal fibrosis prevented pelviureteric re-approximation and necessitated conversion to an open procedure in one patient. The mode of the post-operative morphine sulphate requirement was 0 (range 0–40) mg in those patients successfully operated, who were discharged home after a mode post-operative stay of 2 (range 2–4) nights. Follow-up (minimum 3 and maximum 12 months) MAG3 diuresis renography showed no functional obstruction in six anastomoses; the remaining two anastomoses were shown to be widely patent on retrograde ureteropyelography.
Conclusion: Long-term renographic follow-up is necessary to determine the efficacy of this procedure but the superiority of open pyeloplasty over other treatment modalities for PUJ obstruction, the benefits of an extraperitoneal laparoscopic approach over its transperitoneal laparoscopic and open counterparts, and the results of the initial tissue approximation studies give reason for optimism.

96

Combined antegrade-radiological and retrograde-endoscopic approach to ureteric strictures: a rendezvous procedure

M.J. Kellett, T. Philp, A. Pope, P.J.R. Shah, R. Ahlawat and J.E.A. Wickham *St Peter's Hospital, Middlesex Hospital, Mortimer Street, London, W1N 8AA*

Introduction: Ureteric strictures which cannot be passed with a guidewire, either from above radiologically or from below via an endoscope, may be crossed by combining the two techniques at one session.
Patients and methods: Twelve patients with obstructed upper tracts had nephrostomies placed and an attempt to cross the strictures under fluoroscopic control under local anaesthesia failed. Under general anaesthesia, with the patient supine, the lower end of the stricture was reached endoscopically. At the same time, a mixture of methylene blue and contrast medium was flushed via a catheter above the stricture and a guidewire was probed from above. Endoscopic visualization of either methylene blue or movement of the guidewire allowed gentle probing from below or allowed the urologist to cut down onto the moving guidewire. Once the stricture was crossed, dilators were used and up to 9 F and JJ stents were inserted. These were left *in situ* for 3 months and reviewed. Three patients had malignant strictures. Of the nine benign strictures, five were mid-ureteric following previous operative injury, three were at the ureteric orifice and one was in an ileal conduit.
Results: All strictures were successfully crossed, dilated and stented. The three malignant strictures were all left with palliative stents whilst receiving adjuvant therapy. Of the nine benign strictures, three had the stents removed at 2 months with a 3–6 month follow-up showing good drainage on renography. Five patients are still stented (between 2 and 18 months); two of these showed re-stenosis when the stents were removed and these were reinserted endoscopically. One patient died from a myocardial infarct 1 month after the procedure.
Conclusion: A combination of radiological and endoscopic manoeuvres allows the approach of previously impassable ureteric strictures with minimally invasive techniques.