



The two cases this month illustrate a potential problem familiar to all surgeons who operate within the abdomen. We at CORESS are most grateful to the reporters who took the trouble to write in. The continued success of the project depends on you to tell us about your mistakes and near-misses and about lessons learned. We hope you will persuade your trainees to do likewise - CORESS is an educational service for all surgeons irrespective of grade.

The development of the project is going well and we are very pleased to say that there is now a dedicated website www.coress.org.uk with details about the project and from where a CORESS Reporting Form may be downloaded. In addition, there is the facility to report your cases to us on-line. Many of you will prefer this method of reporting and we hope to hear from you soon!

Finally, if you would like us to make a presentation on CORESS at your local surgical society meeting or M & M, we would like to help if at all possible. Please telephone Emma Seekings, CORESS Administrator, on 020 7973 0302

WE SEEK IT HERE, WE SEEK IT THERE (1) ...

(Ref: 016)

A lady presented to my clinic with a large recto-sigmoid carcinoma which CT showed to be involving the right ureter and causing a right hydronephrosis. A stent was inserted into the right ureter and "down staging" radiotherapy given.

Two months later, a further CT showed two small metastases in the liver, but the recto-sigmoid primary had greatly reduced in size. After MDT discussion, it was agreed that an attempt should be made to remove it prior to appropriate management of the liver metastases.

At laparotomy, the tumour was mobilised quite easily from the right ureter which was still stented. The left ureter was identified at the pelvic brim and traced proximally and distally a short distance. The inferior mesenteric artery was then separated with some difficulty from the presacral fascia and aortic bifurcation due to radiation fibrosis. The artery was divided and

ligated and, at this point, I realized that the left ureter had been divided with the artery. It was apparent that the left ureter had become adherent to the artery as a result of the radiation fibrosis. The two ends of the ureter were rejoined by a urologist who happened to be in the hospital at the time.

Subsequently the patient made an uneventful recovery and went home.

Reporter's Comments:

Many years ago, I assisted a registrar who divided a left ureter adherent to the inferior mesenteric artery, in similar circumstances, without either of us being aware of this until the damage had been done. I regret having made the same mistake twice but am reminded that the ureters may be very difficult to find when displaced from their normal position by fibrosis or inflammation and are then at particular risk of injury.

A large and very vascular tumour was identified pre-operatively lying between the aorta and left kidney with multiple arterial branches from the aorta and large veins draining into the left common iliac vein and the IVC. The left ureter was not within the tumour but, retrospectively, was clearly within this very vascular bundle.

At operation, the tumour was mobilised from the left kidney and arterial supply ligated. Aware of the risk to the ureter, the very large venous pedicles were ligated carefully but, on dividing a pedicle thought to be venous, the left ureter was partly transected. The injury was immediately recognised and, as no urologist was available, the ureter repaired by the operating surgeon.

The tumour was successfully resected and the patient suffered no ill-effects from the ureteric injury.

Reporter's Comments:

Pre-operative ureteric stent placement would have avoided this complication. I routinely employ this technique when operating on inflammatory abdominal aortic aneurysms but did not consider it in this case. My practice has changed as a result of this experience and I now stent the ureter whenever it is at risk in abnormal tissues.

CORESS Expert's Comments:

Both these cases illustrate the need for constant vigilance, particularly in difficult circumstances, when any retroperitoneal dissection is performed. The ureter is commonly tethered to the large bowel in

inflammatory or neoplastic disease. It may also be displaced medially and become adherent to midline structures in the presence of retroperitoneal fibrosis, however caused. How far should the ureter be exposed to identify and safeguard it? The current view is to avoid extensive dissection, especially after radiotherapy, as the blood supply is tenuous and strictures are not uncommon in these circumstances. Many surgeons would agree that preoperative stenting is a sensible precaution when predictably difficult surgery puts the ureter at high risk of damage. Although this practice may aid identification it cannot be relied upon to prevent injury if the ureter is not recognised, for instance when buried in dense scar tissue.

Sadly, ureteric damage can occur even in the most experienced hands. The outcome then depends on proper management. These cases could be regarded as success stories!! Above all, the damage was recognised at the time. Clearly, if ureteric injury does occur, the ideal is to immediately enlist the help of an experienced urologist who can perform the necessary repair. If, of course, an urologist is not available the operating surgeon will have to resolve the situation. Every General Surgeon should be able to repair a cleanly transected ureter. Can you repair a ureter? Is direct repair always possible or appropriate? Might it be a good idea to have a cup of tea with your friendly urological colleague and agree a strategy **before** this happens to you!

"There but for the grace of God go I" is a powerful educational tool which, in the last few years and for understandable reasons, has not been widely used. CORESS gives us a new opportunity to share our experience of safety-related incidents from which lessons can be learned. I



hope that an increasing number of reports from surgeons and trainees, irrespective of specialty, will enable CORESS to provide valuable feedback both to the individual reporter and to the surgical community in general.

Mr Adam Lewis, CORESS Programme Director