

cores feedback

CORESS feedback

This edition of CORESS Feedback contains descriptions of a variety of adverse incidents. Poor communication is a common theme underlying many near misses and is a contributing factor in several of these cases. Problems associated with absence of appropriate equipment are perennial and the importance of training when adopting new techniques is emphasised.

We are grateful to those who have provided the material for these reports. The online reporting form is on our website (www.cores.org.uk), which also includes previous Feedback reports. Published cases will be acknowledged by a Certificate of Contribution, which may be included in the contributor's record of continuing professional development.

Unsupported trainee

(Ref 238)

A teenage male patient was seen on a night shift in the emergency department (ED) with upper abdominal pain of short duration. He had no history of recent travel or trauma and was otherwise fit and well although he had been fatigued and had flu-like symptoms during the previous fortnight. His girlfriend had recently been diagnosed with glandular fever.

On arrival in the ED, the patient was taken to the resuscitation rooms, hypotensive, tachycardic and pale. Blood gases indicated acidosis (pH 7.2) and haemoglobin was 110g/l. Urea and electrolyte testing suggested an acute kidney injury. On examination, he was pale, sweaty and peripherally cool with a soft but tender abdomen, particularly in the left upper quadrant. Computed tomography revealed intra-abdominal free fluid in the upper abdomen.

I contacted the on-call consultant to relay my concerns that this might be a splenic rupture related to possible Epstein-Barr virus infection but was advised to resuscitate with fluids and informed that this was an unlikely diagnosis given the haemoglobin result and renal injury. I remained concerned about the patient, whose blood pressure improved with fluid administration but who continued to look unwell and whose haemoglobin dropped further after following resuscitation. After two further phone calls in which I stressed my concerns about this patient needing to go to theatre, the consultant on-call agreed to come in and review the patient in the ED.

On review of the patient, the decision was made to proceed straight to laparotomy, at which the findings were of a ruptured spleen with over 2l of intra-abdominal blood. The patient required intensive care unit support postoperatively and remained an inpatient for several weeks before being discharged home.

CORESS comments

The trainee made a good diagnosis in this case but irrespective of diagnosis, the patient had clinical signs consistent with a critical illness. Where there is any concern about a patient's wellbeing or the facts are in doubt, a consultant responsible for a patient has a clear responsibility to be contactable and approachable, and to attend the patient if requested. Failure to respond to a trainee's request for assistance is neglect of duty.

The Association of Surgeons in Training representative on the CORESS Advisory Committee also highlighted the element of two-way communication and advised that trainees develop good communication skills so that when they contact a senior for advice they have seen the patient, they impart a concise and accurate summary of the clinical situation, and they attempt to prioritise the most important clinical details. This enhances the professional relationship between trainee and consultant, and results in 'flattening of the hierarchy', to the patient's benefit.

An old twist on a familiar tale

(Ref 239)

A patient with mechanical restriction of upwards gaze following a blowout fracture caused by an alleged assault required orbital floor repair. The preformed orbital implant fitted nicely and was held in place with a single screw on the inferior orbital rim.

In the recovery room, the patient coughed and started to develop proptosis. The subcuticular skin suture was removed from the midtarsal incision and some haematoma evacuated, and the patient was returned to theatre. In theatre, the blood was seen to be coming from below the orbital implant but when removal of the screw was attempted, no screwdriver fitting the screw could be found. Other sets from the same manufacturer, a proprietary 'universal' screw removing kit and similar screwdrivers from other kits were tried but none fitted. Eventually, the screw was knocked out with a small hammer, the bleeding arrested, the implant replaced and secured with a screw from one of the many opened kits that were now available to me.

Reporter's comments

Whenever any 'new' plating kit is supplied, the standard package should include two separately wrapped screwdrivers: one to use in a case like this, and another labelled and kept separately to extract the screw if subsequently necessary. This double screwdriver rule should increase to four screwdrivers when the screws are transmucosal (intermaxillary fixation screws, screw fixed arch bars) and

the patient may attend the outpatient clinic for them to be removed.

The manufacturer had four different cross-head screws in decreasing size; the one I had used was the smallest and was the only one of this type in the hospital. The screwdriver originally used from the set was no longer sterile and could not be sterilised on site.

CORESS comments

This was a systems failure. All kit necessary for a procedure should be checked for availability (and functionality) prior to an operation being undertaken. The *National Safety Standards for Invasive Procedures* emphasise this point. Surgeons would be well advised to have a backup plan in case a procedure does not proceed as intended.

Histopathology misdiagnosis in renal transplant (Ref 240)

A female patient with renal failure due to diabetes, nephrocalcinosis and glomerulonephritis was transplanted with a donor kidney. At the time of transplantation, perihilar tissue from the donor kidney was sent for histological examination. The transplant recipient made a satisfactory recovery from surgery.

The tissue taken from the donated kidney was processed in histopathology. Initial microscopy showed no abnormal features although ectopic adrenal tissue was evident in the sample. For this reason, further immunohistochemical stains were performed. These indicated that the adrenal tissue was benign but abnormal uptake of the markers in lymph nodes in the tissue suggested the presence of a diffuse nodal carcinoma.

At a histopathology multidisciplinary team meeting, the consensus was that there was a malignant infiltrate in the lymph nodes, the source of which could not be determined. The kidney recipient was contacted and the situation was explained to her in detail. Options (including conservative management and surveillance with or without cessation of immunosuppression, or immediate renal explantation) were outlined. The patient opted for nephrectomy of the donated kidney, which was carried out uneventfully with patch reconstruction of the external iliac artery.

Subsequently, the histopathology was sent to two other academic institutes for further opinions. The possibility that the cells in the lymph node were benign mesothelial cells was suggested. More tests supported this hypothesis. This occurrence is extremely rare but has been described in case reports.^{1,2} The situation was discussed in depth with the patient and it was explained that her functioning transplant had been removed on the basis of an erroneous histological diagnosis.

It was noted that the original kidney donor had suffered from end-stage liver failure prior to a successful liver transplant, which might have allowed abnormal circulation of mesothelial cells to the retroperitoneum.

Reporter's comments

Benign hyperplastic mesothelial cells can mimic a malignant process. Full ascertainment of the histological discrepancy and a definitive diagnosis should have been established before suggesting nephrectomy of the transplanted kidney to the patient.

CORESS comments

This is an exceptionally rare situation. In deceased donor transplantation, very uncommonly, a sample from the donor kidney may be sent for histological analysis if there is an area that has an abnormal appearance. If there is clearly significant suspicion of malignancy, then the kidney should not be transplanted, irrespective of histology. On the other hand, if there is a low index of suspicion, especially as the recipient may have been waiting for some time for this offer, it would be reasonable to implant the organ and await subsequent histology results. Typically, frozen section is not used, for two reasons: first, this may not be available out of hours and second, it may not be accurate enough for diagnosis of certain lesions.

The CORESS transplantation expert had experienced two similar cases in which histology reports later came back positive for tumour. In the case described in this report, the correct approach was taken, with discussion with the recipient about whether the organ should be explanted. It was perfectly reasonable to proceed to nephrectomy based on a histopathology report that suggested malignancy. If the subsequent histological opinions were based on the original biopsy rather than study of the full kidney, then it would have been appropriate to suggest waiting for this opinion before proceeding to nephrectomy. However, the patient herself might not have wished for this and might have opted for nephrectomy irrespectively in this scenario.

In summary, accurate histological diagnosis is vital for any lesion biopsied at the time of transplantation and early opinions from specialist histological centres are useful.

References

1. Argani P, Rosai J. Hyperplastic mesothelial cells in lymph nodes: report of six cases of a benign process that can stimulate metastatic involvement by mesothelioma or carcinoma. *Hum Pathol* 1998; **29**: 339–346.
2. Peng L, Shen Q, Liu X *et al*. Diffuse hyperplastic mesothelial cells in multiple lymph nodes: case report with review of the literature. *Int J Clin Exp Pathol* 2013; **6**: 926–931.

Ureteric stent misplacement (Ref 241)

A 62-year-old man underwent a difficult anterior resection for a carcinoma of the low sigmoid colon. During mobilisation of the colon, it was noted that the left ureter had suffered a partial thermal injury due to diathermy. The on-call urologist was asked to inspect the ureter and (at the request of the consultant colorectal surgeon) agreed to place a ureteric stent in the injured ureter at the end of the

procedure. On completion of a protracted procedure, the urologist was called back but a handover had taken place and although correctly briefed, a new on-call urologist attended. Unfortunately, the stent was placed in the right ureter.

A week later, the patient returned to theatre for drainage of a pelvic abscess, at which time it was noted that the stent was in the wrong ureter. The right ureteric stent was removed and a further stent was positioned correctly in the left ureter. The patient subsequently made an uneventful recovery.

Reporter's comments

Stent placement was undertaken as an emergency, and the usual safety precautions of radiology review and marking of the correct side did not take place. There was no 'stop' period before stent placement. There appears to have been miscommunication between the colorectal and urological teams, and the first stent was placed into the right ureter on the understanding by the urologists that this was the injured structure. The colorectal team had unscrubbed and despite observing the procedure, did not comment on the stent placement. The remaining scrub team also failed to alert the surgeons to the side discrepancy.

CORESS comments

This case is a 'never event' and raises several issues. It is well recognised that poor communication may cause problems when teams change over. Scrupulous handover and communication of important information is vital. Where one senior surgeon, initially responsible for the case, is present throughout, that surgeon (the colorectal consultant) should have overseen all aspects of the case and takes responsibility for the wrong-sided intervention, even if the stent placement was not within the realm of his or her specialty. A team pause (and joint confirmation that the stent was to be placed appropriately) might have

prevented this incident. Team briefings should empower other members of the team to speak up if an incorrect manoeuvre is recognised and the sign-out check was a further potential opportunity to remedy the situation.

Rectus sheath catheter retention (Ref 242)

On the basis of literature suggesting a benefit in postoperative analgesia, bilateral rectus sheath catheters for postoperative local anaesthetic infusion were placed, prior to laparotomy closure, following abdominal surgery. At day 4 postoperatively, the left-sided catheter was removed without incident but the right-sided catheter remained obstinately stuck. The patient had to return to theatre for re-exploration, whereupon the catheter was found, securely fixed, in the knot of the mass closure suture.

Reporter's comments

This was the first time this technique had been adopted, on the basis of a literature review. The surgeon, who was placing the catheter at the anaesthetist's behest, had received no training in the technique. There were no institutional protocols for catheter insertion. Retrospectively, trapping the catheter in the mass closure suture knot seems an obvious risk.

CORESS comments

Sound anatomical knowledge and grounding in physiological and pharmacological principles of postoperative pain relief are basic tools of a surgeon's trade. Consequently, undertaking this procedure seems to have been reasonable. Nevertheless, when performing any procedure for a first time, it is advisable to plan appropriately and (where possible) to have received some formal training or experienced mentorship during the procedure. This is particularly apposite in an increasingly litigious culture.