

This issue of Feedback contains cases which, once again, highlight the need for appropriate pre-operative checks. The problem of lack of familiarity with new equipment is a perennial cause for concern. Always ensure that you know how the equipment you intend to use works, that the necessary components are present and functional and that you've practised using the new equipment BEFORE encountering your patient.

We are grateful to the clinicians who have provided the material for these reports. The on-line reporting form is on our website www.coress.org.uk which also includes all previous Feedback Reports. Published contributions will be acknowledged by a "Certificate of Contribution" which may be included in the contributor's record of continuing professional development.

FLAMING (N)ECK

(Ref: 96)

An elderly patient was admitted for day case surgery to excise a lipoma from the back of her neck under local anaesthesia. The patient was placed prone, the operation site was cleaned with an alcohol-based skin preparation and draped. The patient was given mild sedation and oxygen through nasal cannulae. It appears that the disinfectant solution had collected in the patient's hair because, when diathermy was applied to cauterise a small wound edge bleeding point, the patient's head was suddenly engulfed in flames. The fire was rapidly extinguished but left small burns to one ear and loss of a large portion of hair.

Reporter's Comments:

Several factors contributed to this incident. A flammable skin preparation was used and the presence of residual alcohol after cleaning went unrecognised. Accumulation of oxygen from the nasal cannulae beneath the drapes may have acted as an accelerant. The diathermy spark acted as an ignition source. Always be vigilant to the risk of surgical fires, particularly when operating on head or neck or in areas where a skin preparation solution may pool.

CORESS Comments:

All alcohol preparations are flammable. Even lower concentrations of alcohol containing solution (eg.

povidone-iodine containing 30% alcohol) carry a moderate flammability risk with a documented flash point of 34°C [1].

There should be no hazard if alcoholic preparations are used correctly:

- The amount used should be adequate to keep the site wet for the recommended time.
- Sufficient time must be allowed for alcohol-based skin preparations to dry thoroughly before commencing the procedure, to ensure that all combustible ingredients have evaporated.
- The preparation should be allowed to evaporate completely before electrocautery, diathermy or laser instruments are switched on.
- Pooling of excess liquid below the patient, or in cavities or bodily contours, should not be allowed to occur.

Reference

- [1] *Recommendations for Surgical Skin Antisepsis in Operating Theatres. Centre for Healthcare Related Infection Surveillance & Prevention (CHRISP), Queensland Health, August 2009*
http://www.health.qld.gov.au/chrisp/resources/rec_prac_skinprep.pdf

CONSECUTIVE CHOLECYSTECTOMIES?

(Ref: 99)

A middle-aged female patient was referred to the outpatient clinic with a history of intermittent right upper quadrant pain and the report of an ultrasound scan, performed at a local community hospital, which described a contracted gallbladder with multiple gallstones. She gave a past history of appendicectomy and laparoscopic hernia repair, both performed more than 10 years previously. She was booked for elective laparoscopic cholecystectomy and seen in the pre-assessment clinic which elicited the same history of previous surgical procedures.

On the morning of her surgery, she underwent informed consent for laparoscopic cholecystectomy when the procedure to remove her gall bladder was explained to her. At laparoscopy, adhesions around the gallbladder fossa were found and, when these were taken down, she was found to have no gallbladder. A second opinion was sought from a hepatobiliary surgeon, who confirmed the findings. After surgery, a frank discussion took place with the patient and it transpired that the patient had previously had "an operation on her gallstones", but thought that she still had a gallbladder.

She made an uncomplicated recovery and went home. A critical incident form was completed.

Reporter's Comments:

An incomplete past medical history was obtained from this patient, perhaps because of her lack of understanding of previous treatment, and this was compounded by an erroneous ultrasound report, leading to inappropriate surgery.

CORESS Comments:

An ultrasound is best interpreted as a dynamic investigation. Without the scan itself, many surgeons would accept a report from an ultrasonographer known to them. However, an ultrasound scan is relatively cheap and easy to repeat. Surgeons should maintain a high index of suspicion and a repeat scan should have been undertaken pre-operatively in any circumstances of doubt. A check of the date of the ultrasound report was essential since the reported scan may have preceded the patient's previous surgery. Finally, if the patient had been given a copy of the discharge summary following previous surgery, this might have helped to resolve her (and the surgeon's) confusion about past procedures.

MISSING KIT MISHAP

(Ref: 95)

I was performing a laparoscopic gastric bypass on a male patient with a BMI of 54, and had arranged with a surgical instrument company representative to try out a new circular stapling head for gastro-enteric anastomosis. Everything was going smoothly and I had placed the new circular stapling head, when I asked the representative for the laparoscopic handle portion of the stapler to complete the anastomosis. A silence ensued, the rep went pale, and I felt that trickle of perspiration between the shoulder blades when she told me she had only brought the standard handle, which did not match the head. I waited in vain whilst efforts were made to obtain another handle, but eventually converted to a hand-sewn anastomosis. A post-operative leak occurred (inevitably) and the patient developed a wound infection, but survived. Eventually, to his satisfaction (and his surgeon's relief!), he began to lose weight.

Reporter's Comments:

This occurred pre-WHO checks which, if then in existence, might have saved the day. Always ask the rep to bring TWO of everything – there is always the possibility of stapler failure, dropping the handle on the floor, de-sterilisation, etc.

CORESS Comments:

This case is one of several, recently received by CORESS, in which operative delays have occurred because vital equipment was missing. ALWAYS check, yourself, that the correct equipment is present, that the parts match and can be assembled and, preferably, that a spare is available. Particularly when using new equipment, make sure you are familiar with its operation and assembly of component parts. If possible, practice using the equipment in a simulated setting first.

TRACHEOSTOMY CONFUSION

(Ref: 97)

A tracheostomised patient, with no available previous medical records, was admitted requiring urgent abdominal surgery. The patient was only able to give a limited verbal history to the on-call anaesthetists. The patient was handed over to a new on-call team before surgery, and a trainee re-assessed the patient in the anaesthetic room. On hearing the patient speak, the doctor assumed the upper airway was patent and pre-oxygenation was attempted via a face mask. It became rapidly apparent there was no oropharyngeal communication with the trachea, and that the patient had a tracheostomy tube sitting in an end-tracheal stoma, with an indwelling tracheo-oesophageal valve permitting speech. Anaesthesia and ventilation were delivered via the tracheostomy, and the rest of the procedure was undertaken uneventfully.

Reporter's Comments:

With improving outcomes from chemo and radiotherapy and organ preserving surgery, patients with laryngectomies are seen less frequently. Tracheostomy care is increasingly delivered by specialist nurses and,

as a result, junior doctors gain little experience in tracheostomy management.

CORESS Comments:

Some tracheostomised patients may still have a patent upper airway, permitting delivery of gases, and occasionally intubation, but this must never be assumed. Most laryngectomy patients will have a visible permanent stoma in the neck, but some wear a bib, external one-way valve, or retain a tube to prevent stomal closure. Many laryngectomy patients have indwelling tracheo-oesophageal valves allowing them to produce oral speech, therefore the ability of the patient to speak must not be taken as a sign of upper airway patency.

This case highlights, once again, the importance of good handover communications, appropriate use of pre-operative checks. CPR training should include the care of tracheostomised patients, and all doctors should be aware of the principles of safe management for such patients.

URETHRAL BALLOON INFLATION DURING URINARY CATHETERISATION

(Ref: 100)

An elderly male with known prostate cancer, in addition to colonic cancer with liver metastases, developed urinary retention and was referred to hospital where a Foundation Year 1 doctor performed urethral catheterisation. Catheterisation was painful and the balloon of the catheter was inflated although no back flow of urine was obtained. The doctor left the ward with instructions to contact her in 2 hours time if no urine had passed. After two hours, no urine had passed and the patient began passing frank blood and clots. The catheter balloon had been inflated in his prostatic urethra causing trauma. Urological assistance was obtained and the catheter inserted into his bladder with drainage of urine prior to inflating the balloon.

The next day the patient had passed 2500ml of frank haematuria, and the bleeding continued. The patient had abnormal clotting secondary to his liver metastases. After consultation with the haematologist, the patient was treated with fresh frozen plasma 15ml/kg and vitamin K 10mg IV for 3 days. Following this, the haematuria ceased and the patient was discharged to palliative care.

Reporter's Comments:

The admitting doctor continued to catheterise the patient despite the procedure being painful, and did not seek help. The catheter balloon was inflated before flash back of urine was seen, causing trauma in the prostatic urethra. Despite the patient being in painful urinary retention, the doctor left the patient, before seeing any urine to drain from the catheter.

CORESS Comments:

Prostatic disease may render catheterisation difficult. However, in the event of significant pain or difficulty introducing a urinary catheter, attempts at catheterisation should cease and expert help should be obtained. Care should always be taken to avoid inflating the catheter balloon unless this is in the bladder. Failure to pass urine via the catheter, in a patient with urinary retention, should have alerted the practitioner in this case to the fact that the catheter was inappropriately sited. Always measure and document residual urine volumes ensuring that the output fits the clinical picture.

FINALLY

The Medicines and Healthcare products Regulatory Agency (MHRA) receives many reports of incidents involving infusion pumps. These incidents are of concern, as many result in patient harm or death, primarily from over-infusions. MHRA have recently released a revised Device Bulletin on Infusion Systems which can be found at:

<http://www.mhra.gov.uk/Publications/Safetyguidance/DeviceBulletins/CON007321>

This publication has been updated to take into account changes in devices and practices, as well as information gained from the investigation of adverse incidents and current trends in the use of infusion systems.