Technical Section

TECHNICAL NOTES AND TIPS

TECHNICAL NOTES

Suction drain using a drip-giving set: a simple and cheap technique

Sami Eldirdiri¹, Khalid A Osman², Rehab Almushly¹, Omar Nugud³

¹Department of Surgery, Gadarif Teaching Hospital, Gadarif, Sudan

²Department of Surgery, University Hospitals of Leicester NHS Trust, Leicester, UK

³Friarage Hospital, Northallerton, North Yorkshire, UK

CORRESPONDENCE TO

Khalid A Osman, E: khalidosmon@hotmail.com

Figure 1 Side holes are created in the tube part of the drip-giving set using scissors

BACKGROUND

Resources are very limited in third world countries. Suction drains are expensive. We describe a technique of using a drip-giving set and bag to construct a suction drain following thyroid and parotid surgery to prevent the formation of haematomas.

TECHNIQUE

A sterilised drain set is used; small side holes are made in the tubes using scissors (average 6–10 holes) (Fig 1). The drip bag is emptied and a negative pressure is created (Fig 2). (Saline is used for the operation and is not discarded.) The drip set is connected to the bag to act as a suction drain. The roller clamp can be used to control flow and prevent the loss of negative pressure when changing the bottle. It can also be used as a simple drain. The closed drainage system helps to prevent infection.

Figure 2 Air is evacuated from the saline bag to create negative pressure and the bag is connected to the tube.

DISCUSSION

We have used this technique in over 50 patients in Gadarif Teaching Hospital. It is effective, cheap, removal is simple and we did not encounter any problems.

Reducing particulate metal wound contamination when removing volar locking plates in the distal radius

AG Hacker¹, R Kampa², R Owens³

¹Croydon University Hospital, Croydon, UK

²St Richard's Hospital, Chichester, UK

³St George's Hospital, London, UK

CORRESPONDENCE TO

Andy Hacker, E: andyhacker@doctors.net.uk

BACKGROUND

With the advent and increased use of locking plates in orthopaedic trauma, new and challenging complications have arisen. The inability to remove one or more of the locked screws from a plate may necessitate cutting the plate from around the screws with a high-speed burr and then removing the locked screw attached to the plate with pliers. This method produces large volumes of particulate metal debris and heat. We have developed an easy and reproducible way of reducing the amount of metal debris contamination during this procedure.

TECHNIQUE

The method employs the use of water-based lubricant jelly, such as K-Y® Jelly (Johnson & Johnson, New Jersey, US) or Instillagel® (CliniMed Ltd, Buckinghamshire, UK). The viscous nature of the gel allows application to the metalwork and surrounding soft tissues. It also 'catches' any particulate matter produced. Both the abovenamed jellies are water soluble and non-toxic, allowing them to be washed from the wound. The clear and colourless nature allows visualisation of the soft tissues and metalwork, and its high water content serves as a lubricant, which in theory may reduce the heat generated by the burr. We apply a thin layer of gel to the plate and surrounding soft tissues prior to cutting the plate. The majority of the gel containing the metal particles is removed using a McDonald elevator. The wound is then washed out with copious amounts of normal saline.

DISCUSSION

We have found this method useful in reducing wound contamination by particulate metal debris and feel that it is applicable in any situation in which such debris is produced.

Replacing the suprapubic catheter that has 'fallen out'

Susan Willis, Bruce Montgomery

Department of Urology, Frimley Park Hospital, Frimley, UK

CORRESPONDENCE TO

Susan Willis, E: susanwillis303@gmail.com

BACKGROUND

The suprapubic catheter (SPC) that 'falls out' or cannot be reinserted following a routine change is a common urological problem that requires urgent attention. If not replaced promptly, the suprapubic track may close, necessitating a further procedure to reintroduce the catheter, usually at a later date. It is estimated to cost £2,400 to insert an SPC in theatre as an inpatient or £462 as a day case.¹

TECHNIQUE

The Mediplus (High Wycombe, UK) system² uses the Seldinger technique to introduce an SPC. An 18G needle is passed into the bladder, down which is threaded a rigid guidewire with a flexible tip. The needle is removed and a trochar with a peelable sheath is passed over the guidewire. The guidewire and trochar are removed and the catheter is inserted.

For the SPC that has fallen out it may not be possible to pass the Mediplus guidewire down the track due to its rigid upper portion. A Sensor® PTFE-Nitinol guidewire with a hydrophilic tip (Boston Scientific, Natick, Massachusetts, US) can usually be passed safely down the track and into the bladder. The Mediplus trochar can then be passed over this guidewire, with its tapered construction providing dilatation of the track, allowing the sheath to be used to replace the catheter in these difficult cases.

DISCUSSION

We have used the Mediplus system to replace SPCs in the emergency department and on the ward that otherwise could not be reinserted. It was comfortable for the patient, safe and has not generated any further procedures or hospital visits.

References

1. Khan A, Abrams P. Suprapubic catheter insertion is an outpatient procedure: cost savings resultant on closing an audit loop. *BJU Int* 2009; **103**: 640–644.
2. Mohammed A, Khan A, Shergill IS, Gujral SS. A new model for suprapubic catheterization: the MediPlus Seldinger suprapubic catheter. *Expert Rev Med Devices* 2008; **5**: 705–707.

Laparoscopic reinsertion/exchanges of peritoneal dialysis catheters using the modified Y-TEC® system

A Bagul, LC Firmin, U Mathuram Thiyagarajan, ML Nicholson
Leicester General Hospital, Leicester, UK

CORRESPONDENCE TO

Atul Bagul, E: atulbagul@hotmail.com

BACKGROUND

The trend for the insertion of a peritoneal dialysis catheter (PDC) has moved from open surgery to laparoscopic or peritoneoscopic approaches,^{1–3} which offer advantages such as safer placement, fewer postoperative complications, longer functional survival and lower leak rates.^{1,4,5} We describe a modified Y-TEC® (Medigroup Inc, Oswego, Illinois, US) technique for dealing with problems that could be encountered during reinsertion/exchange.

TECHNIQUE

A 1cm incision is made in the left/right upper quadrant and a 5mm or 10mm laparoscopic port is introduced via open surgery. Following this, either one or two 5mm ports (depending on the complexity of the case) are inserted under vision, placing these in positions that, after removal, can be used for introducing the Y-TEC® trochar and sheath towards the pelvis (usually 1cm below/lateral to the umbilicus and planned exit site). The trochar is removed and the sheath is dilated using dilators from the kit. A PDC is introduced through the sheath and the tip is placed in the pelvis, manipulating it into desired position. The cuff implanter is used to bury the cuff into rectus muscle. The 5mm port is removed and the PDC is tunnelled out through the port exit site (Figs 1–3).

Figure 1 Approach and port positions