BMJ Innovations Publish Ahead of Print, published on March 6, 2018 as doi:10.1136/bmjinnov-2017-000243

Dislodged nephrostomy: a top tip

Debashis Sarkar, Nigel J Parr

Department of Urology, Wirral University Teaching Hospital NHS Foundation Trust, Wirral, UK

Correspondence to
Dr Debashis Sarkar, Department of Urology, Wirral University Teaching Hospital NHS Foundation Trust, Wirral CH49 5PE, UK; debu4726@yahoo.co.uk

Accepted 21 February 2018

INTRODUCTION

In an ageing population, long-term nephrostomy is increasingly common for the management of patients who are unfit for definitive treatment to relieve of obstruction. Nevertheless, this carries the burden of inadvertent nephrostomy displacement.

When a patient is admitted urgently with dislodged nephrostomy, traditional management options are to allow the collecting system to dilate again, prior to creating a new track, or to take the patient to a theatre as an emergency and to attempt to insert a guidewire with immediate nephrostomy replacement.[1 2] The downside to the former is that collecting system may dilate at a variable rate and sometimes take several days to allow safe reinsertion. Furthermore, a new puncture, which is usually a more invasive procedure than reinserting the nephrostomy catheter via the original track, can also be undesirable depending on the clinical condition of the patient. Although attempting to reinsert the catheter immediately via the percutaneous track seems to be a reasonable option, if there are no contraindications (eg, signs of local infection), emergency transfer to a theatre carries logistical difficulties.[3 4] We report an alternative management plan for dealing with these patients, which our interventional radiologists find helpful, often simplifying the patient pathway.

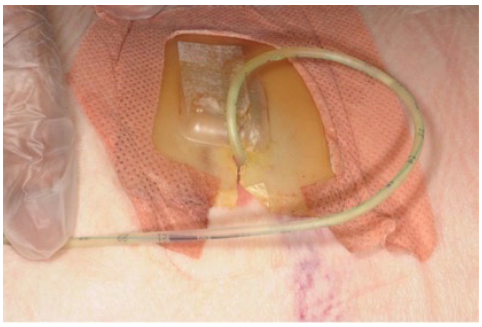

Figure 1 Feeding tube inserted and secured.

TECHNIQUE

One consultant, while on call (NJP) for our unit, has attempted to insert either a 6 or 8 French infant feeding tube through the existing nephrostomy tract for any patient admitted within 8 hours of nephrostomy displacement (figures 1 and 2). If urine drains, the tube is simply taped to the patient's back and nephrostomy reinserted electively at a later time by an interventional radiologist during daytime hours, simply by exchanging the feeding tube by the nephrostomy over a guidewire.

DISCUSSION

Accidental displacement of a long-term nephrostomy tube is becoming increasingly frequent. This may be due to inadvertent traction during either sleep or from normal daily activities. Self-removal can also occur in disoriented/confused patients. However, in many cases, the cause remains unknown.[5] In an audit at our unit, emergency displacement took place 56 times in 12 months (August 2014 to August 2015) and in all the cases initial displacement was successful (100%). However, three patients had to wait for their kidney to dilate for some time and for periodic scanning. The most common causes for long-term nephrostomy were advanced cancer, and urinary tract calculus in unfit individuals, median age of 72 years (range 49–87). The estimated cost for the interventional radiology alone in this group was £111,104, but total cost including hospital stay and medications would have been much higher, demonstrating that this is not an insignificant problem.

A previous study investigated success rate for attempted reinsertion of accidentally dislodged nephrostomy catheters through the original track in 156 patients.[6] The authors reported a 100% success for reinsertion within 24 hours of tube dislodgement and 80% when attempted on day 2. However, this was from a large interventional radiology unit

To cite: Sarkar D, Parr NJ. *BMJ Innov* Epub ahead of print: [please include Day Month Year]. doi:10.1136/bmjinnov-2017-000243

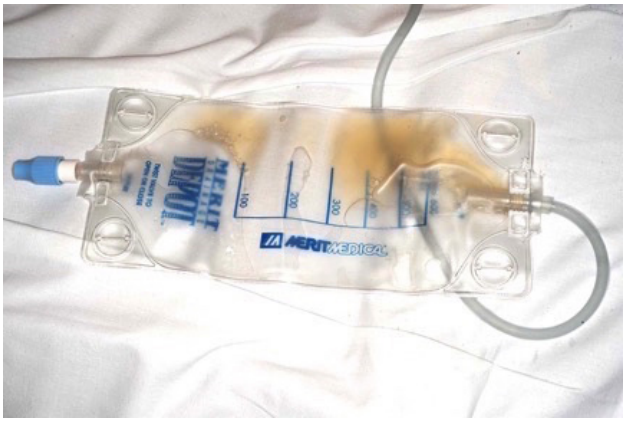

Figure 2 Nephrostomy feeding tube draining urine.

also dealing with large numbers of displaced drainage catheters from other sites. Although this appears to be the optimal method of management, we believe that few hospitals could meet this logistical challenge.

Our technique avoids the logistical difficulties with inserting a new tube as emergency in a theatre or interventional radiology suite. Furthermore, when successful, it is subsequently easier for both the interventional radiologist and the patient. Our interventional radiologists now encourage the on-call urologists to attempt insertion of an infant feeding tube when a nephrostomy has been recently displaced, and this can usually be performed very quickly either in Accident and Emergency or in the Surgical Assessment Unit, relieving the acute problem.

Contributors DS was involved in design, consent and data collection. NJP was involved in design and data collection. Both authors wrote and edited the paper.

Funding This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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Notes