Percutaneous transcolonic puncture of retained Foley balloon catheter

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Summary: A case of large bowel obstruction complicated by a retained intracolonic Foley balloon catheter is reported, and the minimally invasive technique for removal is described.

Introduction

We report on a patient who required percutaneous deflation of a Foley balloon catheter due to distal migration from its original position through a defunctioning ileostomy stoma. This complication has not previously been published and we describe a technique for retrieval of the catheter.

Case report

A 76 year old woman presented with a history of change of bowel habit and vomiting. Clinically she had signs consistent with bowel obstruction, and this was confirmed radiologically. A limited barium enema study demonstrated a stenosis in the region of the sigmoid colon. At laparotomy the sigmoid colon was found to be involved in an acute inflammatory process consistent with diverticular disease. A defunctioning loop ileostomy was fashioned to relieve the proximal obstruction, and, in order to decompress the large bowel distal to the stoma, a 26 FG Foley balloon urinary catheter was inserted through the efferent limb of the ileostomy into the caecum, and the balloon inflated with 30 ml of water. Post-operatively she made a good recovery but on the 3rd day the absence of catheter end emerging from the stoma was noted. Plain radiography demonstrated the catheter in the descending colon. In view of the distal stenosis, the catheter failed to pass spontaneously. Using ultrasound alone, the balloon could not be visualized accurately enough to permit puncture. Therefore barium was instilled via the efferent limb of the ileostomy resulting in better contrast definition of the balloon. After infiltration with local anaesthetic, and broad spectrum antibiotic prophylaxis, a 22-gauge Chiba needle was inserted percutaneously under

fluoroscopic control and the balloon punctured (Figure 1). The catheter passed spontaneously per rectum the following day.

Discussion

Percutaneous transvesical puncture of balloon Foley catheters has been described using ultrasound guidance.^{1,2} Percutaneous puncture of retained angioplasty catheter balloons has also been described by Schneider *et al.*³ Moisey and Williams have described the use of contrast radiology to locate the balloon of retained intravesical Foley catheters prior to percutaneous puncture.⁴ Intraluminal Foley bal-

Figure 1 X-ray showing puncture of Foley balloon with Chiba needle.

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loon catheters can be used to defunction obstructed large bowel via a caecostomy, or to aid deflation of obstructed bowel by insertion through a defunctioning stoma. The migration of an intraluminal catheter placed through a stoma should be prevented by securing the catheter to the skin. The use of contrast radiology in this case resulted in the successful retrieval of the retained Foley catheter with minimal invasion.

References

1. Higgins, W.L. & Mace, A.H. Puncture of a nondeflatable Foley balloon using ultrasound guidance. *Radiology* 1984, **151**: 801.
2. Rees, M. Ultrasound guided suprapubic puncture – a new, simple way of releasing a blocked Foley balloon. *Br J Urol* 1981, **53**: 196.
3. Schneider, J.R., Johnsrude, I.S., Lund, G., Rysavy, J., Anderson, R.W. & Amplatz, K. Percutaneous catheter balloons: failure to deflate. *Radiology* 1985, **155**: 832.
4. Moisey, C.U. & Williams, L.A. Self-retained balloon catheters – a safe method of removal. *Br J Urol* 1980, **52**: 67.

Over the last 8 years we have been referred, annually, an increasing number of patients with Foley catheters which have failed to deflate when due for exchange or removal. We have practiced percutaneous puncture of these balloons under either X-ray or ultrasound control with success in all cases and no reported untoward after effects. This has proved to be the most satisfactory method of resolving a relatively common problem.