COMPLICATIONS OF ^{125}I IMPLANTATION: INABILITY TO DEFLATE FOLEY CATHETER

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ABSTRACT—Obstruction of the balloon inflation tract of a Foley catheter by an ^{125}I seed is reported. An endoscopic method for catheter removal is described.

A sixty-four-year-old white man with Stage B2 carcinoma of the prostate was treated with bilateral pelvic lymphadenectomy and ^{125}I implantation. Prior to implantation a Foley catheter was passed into the bladder to permit drainage and to facilitate urethral localization. However, because of the prostatic induration, the catheter was difficult to palpate intraoperatively. Two days postoperatively, an attempt to remove the catheter was unsuccessful. The balloon would not deflate despite manipulation of the inflation tract with a stylet. Similarly, sequential attempts to rupture the balloon by instillation of air, water, ether, and mineral oil were unsuccessful. Because of the recent pelvic surgery, it was elected not to disrupt the balloon by percutaneous puncture.

To avoid pelvic contamination, an endoscopic technique was used for catheter removal. The patient was brought to the cystoscopy suite, and the catheter was amputated at the urethral meatus. The remainder of the catheter was pushed back into the bladder with a cystoscope. The balloon was then punctured with a visual urethrotome, and the catheter was extracted with a biopsy forceps. Upon removal of the catheter, it was apparent that an ^{125}I seed obstructed the balloon tract (Fig. 1). The patient had an uneventful recovery.

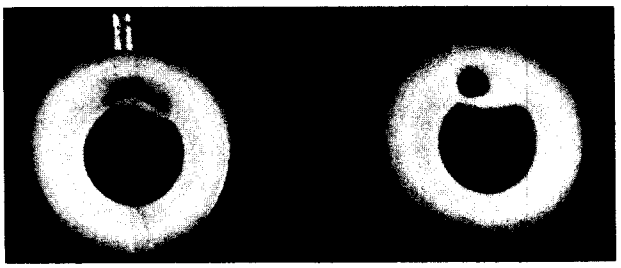

FIGURE 1. *Cross sections of Foley catheter demonstrating ^{125}I seed obstructing balloon tube lumen (left) and unobstructed segment (right).*

Comment

^{125}I implantation therapy for localized carcinoma of the prostate was started at Memorial Sloan-Kettering Cancer Center in 1970. The technique of implantation,[1] associated complications,[2] and long-term survival[3] have been reported. An indwelling catheter at the time of implantation permits bladder emptying which facilitates the pelvic lymphadenectomy and aids in the localization of the prostatic urethra at the time of implantation. This unusual cause of obstruction to the balloon inflation tube emphasizes the importance of making certain that the catheter balloon can be deflated prior to closing the operative incision.

Because of the recent pelvic lymphadenectomy, a percutaneous puncture of the balloon was not performed. To avoid possible contamination of the pelvis, an endoscopic technique was devised. The visual urethrotome made this a safe and simple procedure. This endoscopic method of catheter removal may be applied when other simpler methods of balloon deflation and catheter removal fail.

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References

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