

Unusual Complication of Bladder Catheterization in Child: Catheterization of Ureter

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Abstract: Bladder probing is an invasive procedure that is often used by paediatric and other surgeons. We present a case who was ureter catheterized accidentally while placing a probe into the right ureter in an 18 months old female. If different catheter localization is determined during the examination, the process must be terminated immediately and the relevant specialist should be informed right away.

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Introduction

Bladder probing is an invasive procedure that is often used by paediatric and other surgeons. It is generally used in order to diagnose certain disease, at other times in order to follow urine output, and sometimes for therapeutic purposes in cases with voiding problems. We present a case who was ureter catheterized accidentally while placing a probe into the right ureter in an 18 months old female.

Case report

An 18 months old female patient with recurrent urinary infections underwent endoscopic vesicourethral reflux (VUR) treatment due to renal scarring in the right kidney visible at DMSA (dimercaptosuccinic acid), grade 3 vesicourethral reflux in the right determined at voiding cystourethrography (VCUG) (Figure 1). 3 months later VCUG was demanded. VCUG images were taken after probing the bladder. In the VCUG images revealed ureter trace on the right and that the catheter was placed in the right ureter. The Foley catheter balloon was also determined in the ureter trace (Figure 2). Foley balloon was deflated and pulled out. The patient was taken into the follow up program and was asked for VCUG images for control. After one month no VUR was detected (Figure 3).

Discussion

Generally urethral catheterization is performed and is safe, although complications, such as infection, bleeding, injury to the urethra or bladder or catheter malfunction can ensue (Lowthian, 1996). Serious complications such as bladder perforation and/or peritonitis and retrovesical fistula have been reported (Merguerian et al., 1985; O’Gorman et al., 1990). Kim and Park (2008) reported a case similar to ours have



Figure 1 – Grade 3 vesicourethral reflux.



Figure 2 – Right retrograde pyelourethrography.



Figure 3 – Normal cystography.

38 year old female. However, our patient was a child and such case is the first described in the literature. In this case, migration of the catheter into the ureter is an extremely rare occasion. We think that excessive movement of the patient caused the catheter migration during the procedure.

As girls do not have a long urethra like boys, after advancing the Foley catheter for 3–4 cm and urine flow confirmed then the balloon should be inflated and the probes should be inserted by experienced medical personnel. During voiding cystourethrography, use of catheters without fixing balloon for temporary catheterization of bladder reduces the damage risk to urinary structures, even if the catheter migrates to the ureter. In order to prevent unpredictable complications, administering mild sedation would be beneficial in younger kids with high grade vesicoureteric reflux.

Conclusion

Thus, patients can be protected from rare risks like the present case. If different catheter localization is determined during the examination, the process must be terminated immediately and the relevant specialist should be informed right away.

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