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Elevation of the Bladder Base Indicates Iatrogenic Bladder Outlet Obstruction in a Woman after Anterior Colporrhaphy

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CASE REPORT

A 57 year-old woman underwent an anterior colporrhaphy for a grade 3 cystocele. Before the operation, she had no stress urinary incontinence or difficult urination. The anterior colporrhaphy was performed by a gynecologist with more than 10 years experience in urogynecological surgery. A standard procedure was used. The anterior vaginal wall was dissected from the endopelvic fascia, and then plication of the endopelvic fascia was performed with 3-o vicryl sutures. The vaginal wall was closed with the same sutures. The patient had an indwelling Foley catheter overnight and oral antibiotics were given. After the Foley catheter was removed, the patient could not urinate smoothly, and the post-void residual volume was more than 500 mL. After three voiding trials, she was referred to the urodynamics clinic for further investigation.

VIDEOURODYNAMIC STUDY FINDINGS

Videourodynamic study was performed using a 6 Fr dual channel catheter, 8 Fr rectal balloon catheter, and surface electromyographic patches, and normal saline containing 20% urographin wasinfused at a rate of 20 mL/min. During bladder filling, an elevated bladder base was noted (Fig. 1). The bladder wall was rather smooth without a vesicoureteral reflux. When the infusing volume was 74 mL, the patient had a strong desire to void. She was then allowed to urinate with the catheter in place. A detrusor pressure of 30 cmH_2O was noted on volitional urination, but no flow was observed. The elevated bladder base remained unchanged (Fig. 2). After a second voiding trial, she still could not urinate.

DISCUSSION

Bladder base elevation in women is not uncommon and usually found during voiding cysourethrography or videourodynamic study. An elevated bladder base is likely caused by a spastic pelvic floor in women with dysfunctional voiding and urodynamic bladder outlet obstruction [1,2]. In women undergoing anterior colporrhaphy, too much endopelvic fascia plication may also increase the pelvic floor muscle tone and result in this characteristic image. Because the detrusor pressure was not very high, the high voiding pressure and elevated bladder base might be a transient condition immediately after the operation. With the addition of an alpha-blocker and skeletal muscle relaxant and intermittent catheterization, patient should be able to void spontaneously. An early urethrolysis is unnecessary and could cause relapse of the cystocele.

REFERENCES

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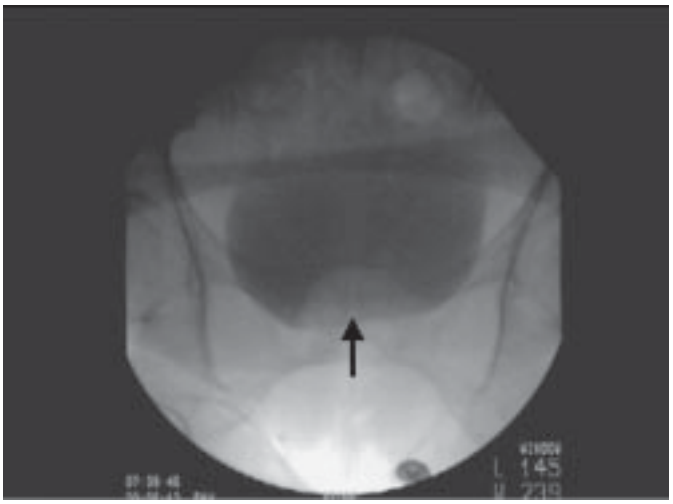

Fig. 1. Cystography during bladder filling shows an elevated bladder base (arrow).

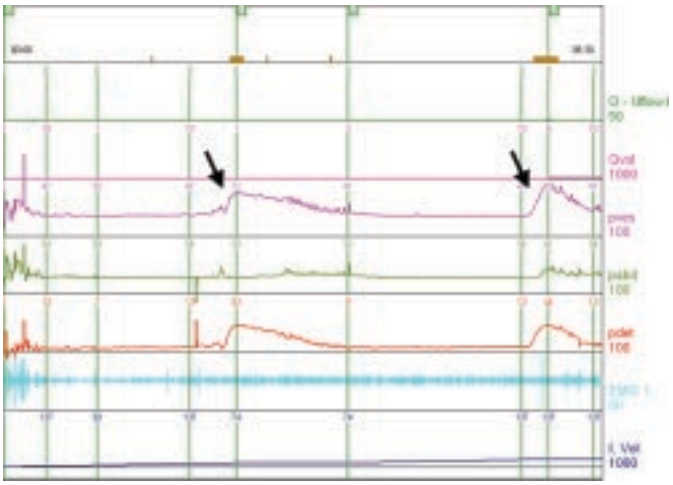

Fig. 2. Pressure flow study shows increased bladder sensation. The patient had a strong desire to void at a volume of 74 mL and voided with a detrusor pressure of 30 cmH_2O but no flow is noted (arrows).