

1
 1,3 . . . 1,4 . . . 1,5 . . . 1,6
 . . . 2 . . . 2
 :
 .
 .
 : 16 (15 , 3:13, 18)
) , (, .)
)
 , 가
 : , 가 (n = 10)
 가가 . (n = 8)
 13 12 (92%)
 가 가
 8 5 (63%) 3 7 (54%) , 4
 , 3 , 9 (56%)
 3
 :
 가

(ureterocele) (1-2, 5-15).

1/5000 - 1/12000

(1, 2). 80-90%

(upper moiety) , 가

(ectopic) 가 , (12-15).

(1-4).

(5, 6).

1983 11 1999 10

16

가 3

가 13 , 15

(1 - 60)

8 , 5 , 3

8 5

2000 4 10 2000 10 16

:
 가 2 (11%) 가 18 가 16 (89%), 가 1-5 (16). (n = 10),
 가 1 (n = 15), (n = 13) (n = 14)
 (intravenous urography) (n = 10) 가
 (voiding cystourethro - graphy) (n = 10)
 가 3-56 19
 가 3 (non -
 visualization), (delayed opacification), 가 2 가
 3

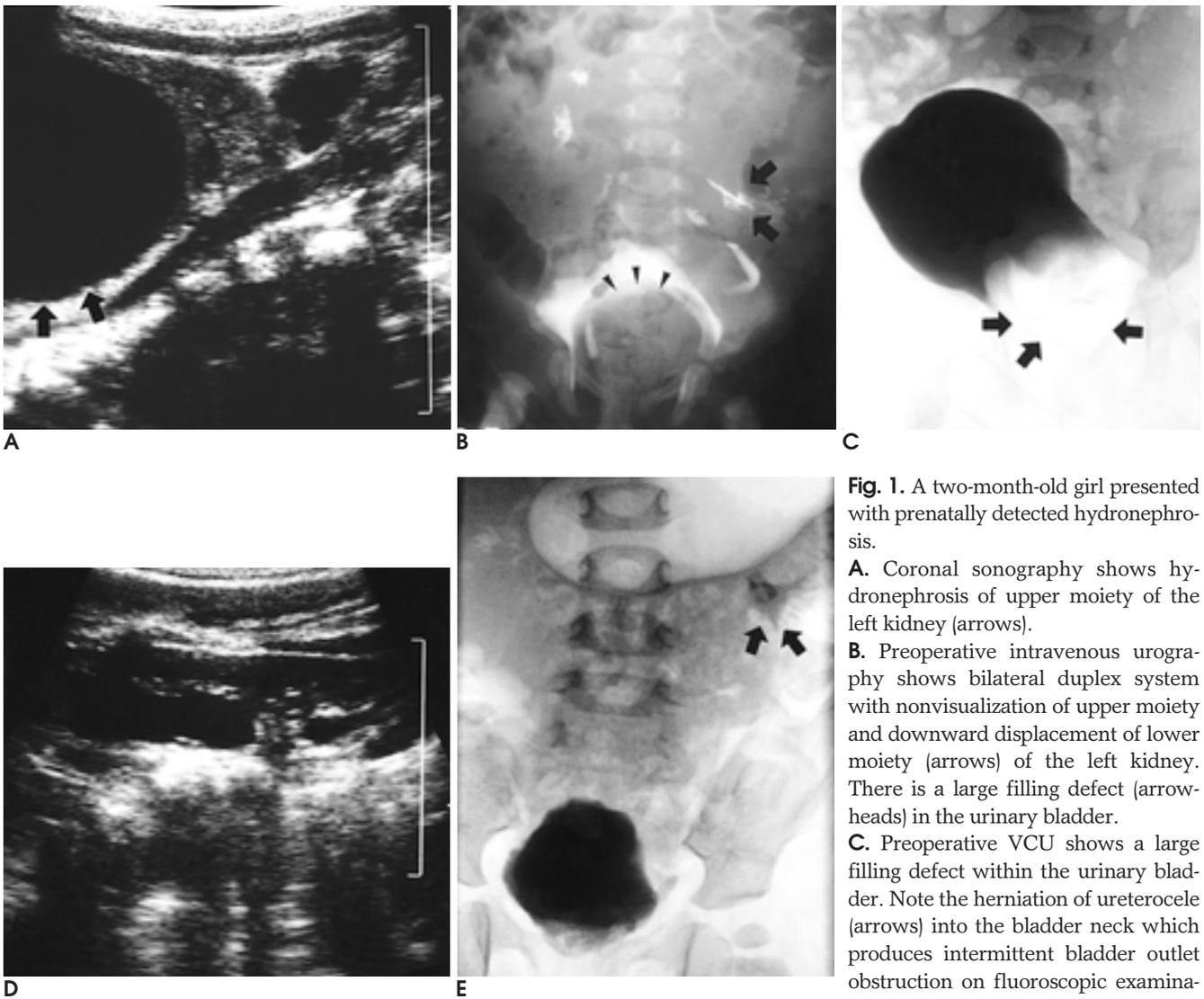


Fig. 1. A two-month-old girl presented with prenatally detected hydronephrosis.

A. Coronal sonography shows hydronephrosis of upper moiety of the left kidney (arrows).

B. Preoperative intravenous urography shows bilateral duplex system with nonvisualization of upper moiety and downward displacement of lower moiety (arrows) of the left kidney. There is a large filling defect (arrowheads) in the urinary bladder.

C. Preoperative VCU shows a large filling defect within the urinary bladder. Note the herniation of ureterocele (arrows) into the bladder neck which produces intermittent bladder outlet obstruction on fluoroscopic examination. There is no vesicoureteral reflux.

D. On postoperative sonography, hydronephrosis of the left kidney was improved.

E. Postoperative VCU shows collapsed ureterocele and vesicoureteral reflux (grade 2) in left kidney lower pole (arrows). Antibiotic therapy was started and then, follow-up VCU (not shown) showed no vesicoureteral reflux.

가 (Fig. 1E & 2B). 가 1
 1 가 14 가 5
 5 , , 가 2 . 2
 (n = 15) 1 1 (Fig. 2 가 5 (39%), 3
 14 (94%) (Fig. , 1 7 (54%) . 3 7 9
 1A). 13 , 5 , 2 ,
 2.6 mm (1.3-6 mm) , (n = 10) 1 가 .
 18 mm (5-30 mm) . (Fig. 1B 8
 & 2A). (n = 10) 가 가 5 (63%)
 3 (lower moiety) 2 , 2 가 2 , 3 3
 (n = 2) 3 (n = 1) 가 가 3
 가 4 가 2 , 1
 (Fig. 1C). 가 가 4 3
 (ectopic orifice) 가 2 가 2
 cecoureterocele . 가 , 3 1
 (n = 10) 가 , 3 가 13 (2-28) 9 (56%)
 가 가 가 (Fig. 1D). 3 16 9 (56%)
 6 mm (2.8-10 mm) 가 가 가 (ureteroneo-
 9 가 가 (ureterouretero-
 , 1 가 . cystostomy), 2 - (hem-
 8 inephrectomy) 2
 13 12 (92%) - .

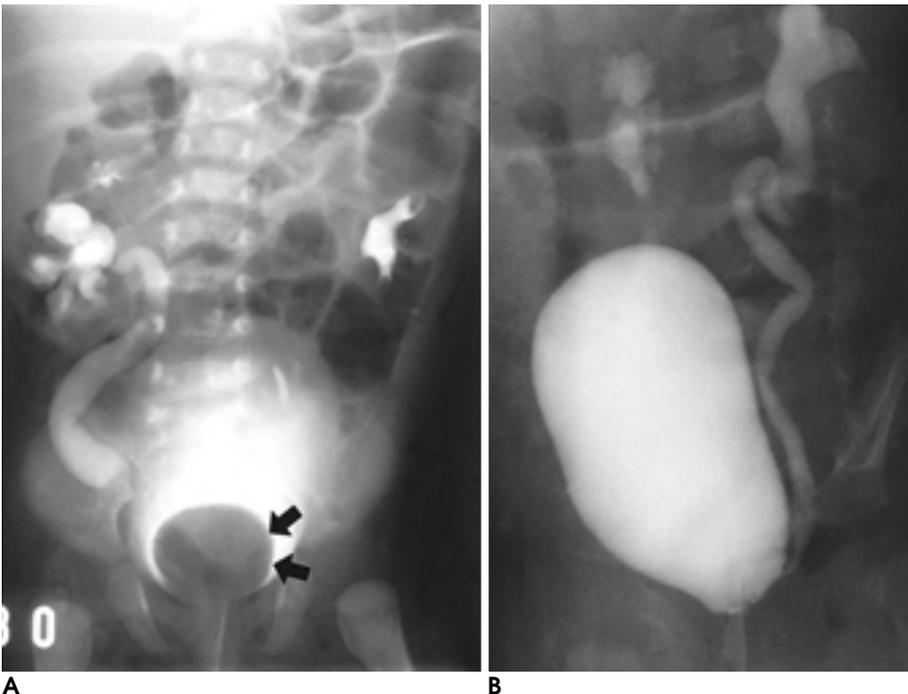


Fig. 2. A one-month-old girl presented with prenatally detected hydronephrosis. She had a history of urinary tract infection.
A. Preoperative intravenous urography shows bilateral duplex system with nonvisualization of upper moiety of the left kidney and mild dilatation of lower moiety of the right kidney. There is a well-defined filling defect (arrows) within enlarged urinary bladder. The ureterocele that is connected to upper moiety of the left kidney may obstruct the ectopic ureteral opening of lower moiety of the right kidney.
B. Postoperative VCU shows bilateral vesicoureteral reflux to the right kidney lower moiety and left kidney upper moiety. The patient is treated with bilateral ureteroneocystostomy.

가 3 , 4 , 9 (56%) .

가 1 .

가

가

(1, 2).

12 - 15).
30 - 80%

(7,

100%, 41%, 0%
(15).

(92%)

56%

가

(5, 6).

가

가

(dysplastic kidney)

가

(17).

(18, 19).

가

가 (20).

가
가

가

(14, 15).

가 3

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Radiological Findings after Endoscopic Incision of Ureterocele¹

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Purpose: Endoscopic incision of ureterocele is considered a simple and safe method for decompression of urinary tract obstruction above ureterocele. The purpose of this study was to evaluate the radiological findings after endoscopic incision of ureterocele.

Materials and Methods: We retrospectively reviewed the radiological findings [ultrasonography (US), intravenous urography, and voiding cystourethrography (VCU)] in 16 patients with ureterocele who underwent endoscopic incision (mean age at surgery, 15 months; M: F = 3:13; 18 ureteroceles). According to the postoperative results, treatment was classified as successful when urinary tract obstruction improved without additional treatment, partially successful when medical treatment was still required, and second operation when additional surgical treatment was required.

Results: Postoperative US (n = 10) showed that in all patients, urinary tract obstruction was relieved: the kidney parenchyma was thicker and the ureterocele was smaller. Intravenous urography (n = 8), demonstrated that in all patients, urinary tract obstruction and the excretory function of the kidney had improved. Postoperative VCU indicated that in 92% of patients (12 of 13), endoscopic incision of the ureterocele led to vesicoureteral reflux (VUR). Of these twelve, seven (58%) showed VUR of more than grade 3, while newly developed VUR was seen in five of eight patients (63%) who had preoperative VCU. Surgery was successful in four patients (25%), partially successful in three (19%), and a second operation on account of recurrent urinary tract infection and VUR of more than grade 3 during the follow-up period was required by nine (56%).

Conclusion: Although endoscopic incision of a ureterocele is a useful way of relieving urinary tract obstruction, an ensuing complication may be VUR. Postoperative US and intravenous urography should be used to evaluate parenchymal change in the kidney and improvement of urinary tract obstruction, while to assess the extent of VUR during the follow-up period, postoperative VCU is required.

Index words : Children, genitourinary system
Ureter, enlarged
Endoscopy
Ureter, reflux
Bladder, radiography

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