0022-5347/96/1564-1468$03.00/0
THE JOURNAL OF UROLOGY

Vol. 156, 1468, October 1996
Printed in U.S.A.

COMPLETE BLADDER DUPLICATION WITH EXSTROPHY OF 1 MOIETY IN A MALE INFANT

KHALID FOUDA-NEEL, SAEED AHMED AND MAHDY BORGHOL

From the Department of Surgery, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia

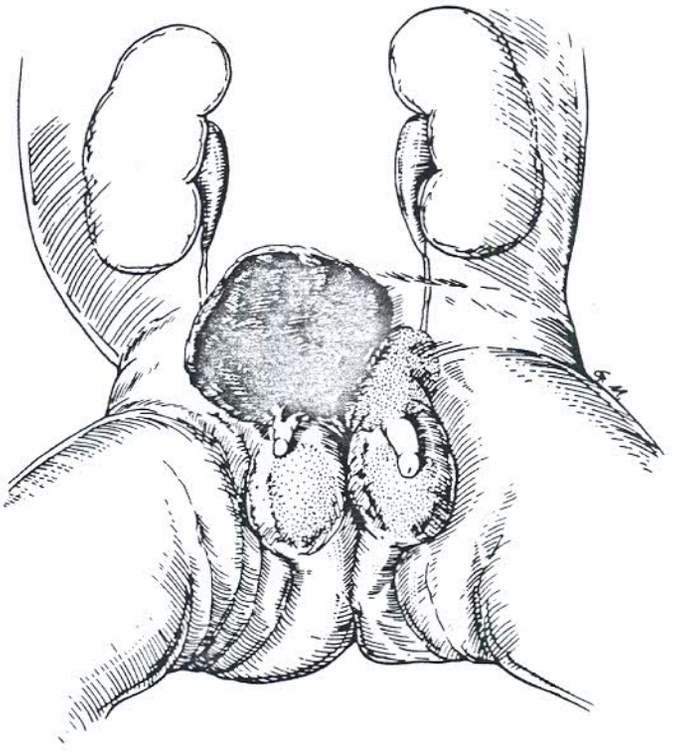
KEY WORDS: abnormalities, bladder

Duplication of the bladder is rare, ranging from an intravesical septum to complete urogenital duplication.[1] The many variants of bladder exstrophy are encountered more frequently.[2] We report a case of complete bladder duplication with exstrophy of the right bladder and a closed left bladder.

CASE REPORT

A male infant who underwent exomphalos repair at birth was referred for treatment of bladder exstrophy at age 3 months. He had 2 penises and a bifid scrotum. Ultrasonography showed a normal right kidney and moderate left hydronephrosis.

After bilateral anterior iliac osteotomies bladder exstrophy repair was done. The right ureteral orifice was easily identified but the left orifice was not located. The peritoneal cavity was opened, revealing a completely closed second bladder with the left ureter opening into it (see figure). A minute urethra from this bladder drained through the left penis. The exstrophied right bladder was mobilized, the left bladder was opened and the 2 organs were closed as 1 unit. The abdominal wall was closed with approximation of the pubic bones. This maneuver brought the 2 penises closer to the midline with the epispadiac opening of the repaired bladder between them. This opening functioned satisfactorily as an outlet for urine but no penile or urethral surgery was performed. Convalescence was uneventful with satisfactory healing. Followup at age 9 months was also satisfactory but no further surgery is planned.



Right bladder exstrophy, intra-abdominal left bladder, 2 kidneys with 1 ureter each, 2 penises and bifid scrotum.

DISCUSSION

The appearance of classic bladder exstrophy is well recognized but there are many variants.[3] Turner et al reported on 3 patients with bladder duplication, including 1 female patient with an exstrophied left bladder and covered right bladder.[2] In contrast, our patient was male, the right bladder was exstrophied and the left bladder was completely closed. The fact that our patient had bladder duplication was not appreciated preoperatively, although a functional radiological evaluation may have helped. However, penile duplication should have aroused suspicion.

CONCLUSIONS

The surgical management of bladder duplication with or without exstrophy should aim at preserving maximal bladder capacity and ensuring drainage from both kidneys. For this purpose cystocystoplasty proved to be satisfactory in our patient.[2]

Accepted for publication March 8, 1996.

REFERENCES

1. Emery, J. A., Campbell, J. R. and Hodges, C. V.: Duplication of the hindgut: low male imperforate anus and unilateral exstrophy of the bladder. J. Urol., **112:** 532, 1974.
2. Turner, W. R., Jr., Ransley, P. G., Bloom, D. A. and Williams, D. I.: Variants of the exstrophic complex. Urol. Clin. N. Amer., **7:** 493, 1980.
3. Gearhart, J. P.: Bladder and urachal abnormalities: the exstrophy-epispadias complex. In: Clinical Pediatric Urology, 3rd ed. Edited by P. P. Kelalis, L. R. King and A. B. Belman. Philadelphia: W. B. Saunders Co., chapt. 15, pp. 579–618, 1992.