CONGENITAL OBSTRUCTION OF THE POSTERIOR URETHRA

BY

J. WAINWRIGHT

From the Department of Pathology, Victoria University of Manchester

(RECEIVED FOR PUBLICATION MAY 1, 1950)

Numerous cases of congenital obstruction of the urethra are reported in the literature. The more frequent causes are posterior urethral valves, urethral bar, hypertrophy of the verumontanum, and contracture of the internal sphincter (Thompson, 1942; Fagerstrom, 1937). Less common defects include diverticulum and atresia of the urethra, and cysts of the urethral glands.

The following is a rare cause of congenital obstruction of the urethra.

Case Report

A boy aged 2 months was admitted to the Duchess of York Hospital, Manchester, with acute retention of urine. The bladder was found to reach the umbilicus and 8 oz. of urine were obtained by catheterization. Subsequently cystoscopy was performed under general anaesthesia, but the child collapsed and died. No history of previous urinary disturbance was noted.

Necropsy. The bladder was distended and hypertrophied, and there was early hydronephrosis with bilateral hydro-ureters. The urethra was opened on the anterior surface and no urethral valves were seen. The posterior urethra appeared pushed forwards, and there was a slit-like orifice on the summit of the verumontanum. This admitted a small probe and led obliquely upwards and backwards. In the midline between the bladder and rectum was a thick-walled cyst, 4 cm. in diameter (Fig. 1), containing turbid yellow fluid which was easily expressed into the urethra (Fig. 2) through the opening on the verumontanum. The lining of the cavity was smooth. The vasa deferentia and seminal vesicles were fused with the outer wall. There were no significant findings in other organs.

Histology. The cyst wall was formed by smooth muscle with a narrow inner fibrous zone, and an ill-defined layer of flattened epithelial cells. There was an acute inflammatory reaction. The kidneys showed an acute pyelonephritis with thrombosis of numerous small veins.

Discussion

The cyst was in the position of the prostatic utricle which opens by a slit-like orifice on the verumontanum and extends as a blind pouch for about ½ in. into the substance of the prostate. Embryologically this represents the fused caudal ends of the Müllerian ducts, from which the uterus and vagina develop.

The hypertrophy of the bladder wall indicated a chronic obstruction even though no history of difficulty in micturition was elicited. Final acute retention was most probably due to the onset of an acute urinary tract infection.

Young, Frontz, and Baldwin (1919) reviewed the literature and found two similar cases, one reported by Fuchs and the other by Tolmatschew. In Fuchs’ case, a 5- to 6-month foetus, a cavity, the size of a pigeon’s egg, was found lying behind the bladder, opening on to the verumontanum. The bladder was hypertrophied and dilated, and there

Fig. 1.—Photograph showing cyst lying behind the distended bladder. A marker (black) is inserted into the urethral opening in the cyst.
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Fig. 2.—Anterior view showing dilated bladder with urethral orifice of the cyst.

was bilateral hydro-ureter and hydronephrosis. The case reported by Tolmatschew (no history) had a thin-walled multilocular sac filled with urine lying behind the bladder and opening on the verumontanum. The cavity was lined by prominent epithelium, which in the lower part resembled that of the vagina. Both these cases were associated with urethral valves. Englisch (1873) described cysts of the prostatic utricle a few millimetres in diameter in two small infants, but these were not of sufficient size to cause urethral obstruction. No other cases have been found in the recent literature.

Summary

A case is reported of acute retention in a 2-month-old boy. This was due to a large cyst lying between the bladder and the rectum, believed to be derived from the prostatic utricle.

I wish to thank Mr. T. Moore, the Duchess of York Hospital for Babies, for permission to publish this case, Professor S. L. Baker for advice, and Mr. F. Ward for the photographs.

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J. Wainwright

Arch Dis Child 1951 26: 162-163
doi: 10.1136/adc.26.126.162

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