

Case Report

Primary Infertility Secondary to Posterior Urethral Valve

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ABSTRACT

A 34-year-old civil servant presented to our facility, following a referral from a gynecologist who was also seeing the wife. The man presented with a history of anejaculation and the inability to impregnate his wife after 23 months of marriage. History, physical examination, and ancillary investigation led to a diagnosis of primary infertility secondary to posterior urethral valve which was subsequently ablated. Three weeks after ablation, he started ejaculating, and 2 months later, the wife became pregnant.

KEYWORDS: *Infertility, anejaculation and posterior urethral valve*

INTRODUCTION

Posterior urethral valve (PUV) is a congenital abnormality which mainly affects the males. It is often associated with the presence of an obstructing membrane in the posterior urethra. It is believed to arise due to inappropriate insertion of the mesonephric duct into the cloaca.^[1] Neonates with this condition may present in the prenatal period with hydroureteronephrosis, a distended and thickened bladder, pulmonary hypoplasia, renal impairment, and ascites.^[1] On the other hand, older children present with febrile urinary tract infection or voiding complaints, whereas adults may present with sexual dysfunction.^[2,3]

The majority of cases are diagnosed in early infancy and childhood and rarely in adolescence and adulthood.^[4] Diagnosis in the fetal period may be suggested by the ultrasound finding of hydroureteronephrosis, bladder thickening, and a distended posterior urethra.^[1] Postnatal diagnosis is made with voiding cystourethrogram during assessment of males with voiding dysfunction.^[5]

In this article, we aim to present the management of a 34-year-old male presenting with anejaculation and primary infertility secondary to PUV.

CASE REPORT

A 34-year-old civil servant presented to our facility on November 7, 2017, with a history of the inability to impregnate his wife after 23 months of marriage.

He was referred to us from a gynecologist who was also seeing the wife. Suffice it to say that nothing abnormal was found in the wife by the gynecologist.

He lives with his wife who has never been pregnant before. Likewise, he had never impregnated any woman before. He has a good and adequate erection, has intercourse with his wife for an average of 4 times in a week, gets to orgasm but claims he had never ejaculated before in his entire life. He voids with a weak and slow stream which had been noticed since birth.

He shaves for an average of twice in a week; he does not have a double vision or problem with perceiving smell.

He was not on any drug, has not had surgery before, and neither took alcoholic beverages nor tobacco product.

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Both of his parents were alive and well, and all his siblings were married with their own children.

Examination revealed normal findings, except on the abdomen that showed a 20-week size distended bladder. (He said his lower abdomen has always been like that from childhood.)

Digital rectal examination was normal

We made an impression: primary Infertility from anejaculation secondary? PUV (Late presentation) to rule out urethral stricture.

Ultrasound done showed markedly distended bladder with a widely open bladder neck, no stone, no mass or diverticulum was noted.

Retrograde cystourethrogram plus micturating cystourethrogram done revealed he had PUV [Figure 1]. Full blood count, fasting blood glucose, and serum electrolyte were all normal.

He was scheduled for urethrocystoscopy and PUV ablation which he had on November 30, 2017. He had a Type III PUV noted around the verumontanum (VERU) [Figures 2 and 3] valve ablation was done at 5 and 7 O'clock positions of the valve.

Three weeks after surgery, the patient had started voiding freely with a good stream, the usual suprapubic distention had disappeared, he had started ejaculating for the first time in his life and in 2 months from the time of surgery the wife became pregnant.

DISCUSSION

This pathology constitute a clinical spectrum, ranging from severe forms, with damage to the upper tract to milder forms.^[4] In the milder forms, the disease may remain silent till much later in life.^[5] Aside from the point alluded to above, other factors may contribute to late presentations in our environment. In this case, probably, ignorance on the part of the parents and guidance, the patient himself, poverty and paucity of specialist and diagnostic equipment may have contributed to his late presentation.

The patient was referred to us by the gynecologist who was managing his wife for primary infertility. Our review revealed he had a poor urinary stream and absence of ejaculation throughout his life despite achieving orgasm. The diagnosis of PUV was suggested by straining and poor urine stream established by history to have started from birth and anejaculation. This was suggested by a voiding cystourethrogram which showed dilated posterior urethra and identification of the valves on urethrocystoscopy confirmed the diagnosis. The patient surprisingly had normal renal function suggestive of the absence of severe disease.

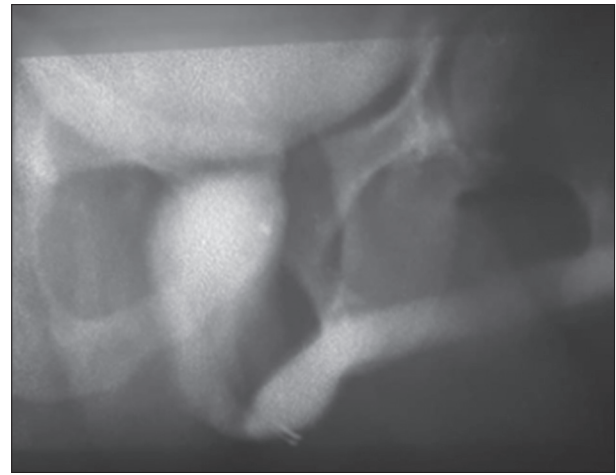


Figure 1: Micturating cystourethrogram showing dilated posterior urethra and filling defect caused by the valve

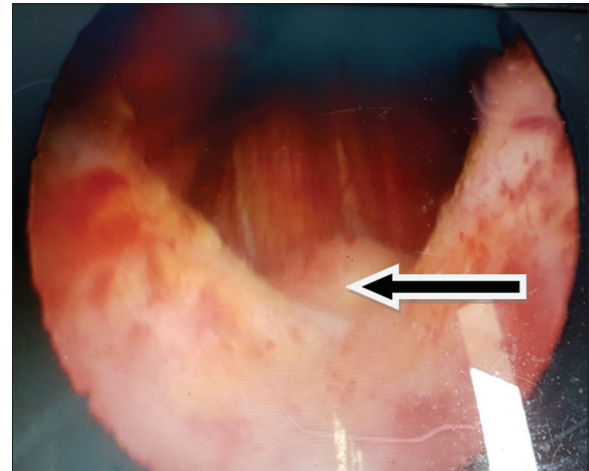


Figure 2: Endoscopic view of verumontanum and external sphincter. Black arrow points at the verumontanum

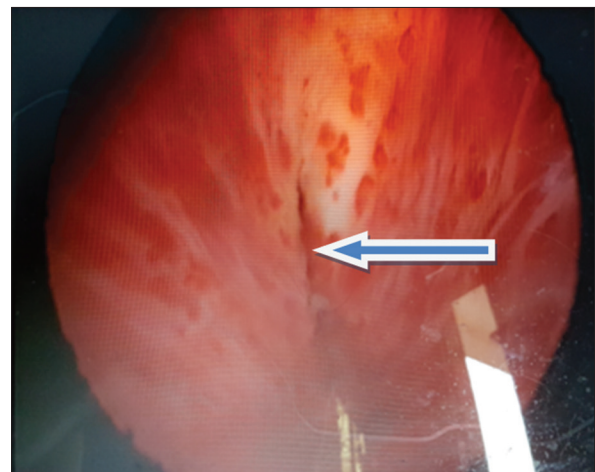


Figure 3: Endoscopic view with Crede maneuver. Blue arrow points to the closed cusp of valve

Late presentation of PUV is an unusual cause of infertility, possibly owing to the fact that most are diagnosed and treated in infancy and childhood.^[6,7]

There is obstruction to free antegrade flow of urine as well as semen since the verumontanum is proximal to the obstructing membrane [Figure 2]. The semen flows along the area of least resistance which is the widely open bladder neck rather than the shut cusp of membrane [Figure 3]. The infertility is the result of failure to deposit semen into the vagina.

Following valve ablation, the urinary stream improved and he started ejaculating and 2 months after treatment his wife became pregnant and has delivered a baby boy.

CONCLUSION

PUV though rare in adulthood is a treatable cause of male factor infertility. Voiding symptoms and absence of ejaculation are highly suggestive of this pathology. Fortunately, adequate treatment will successfully restore fertility.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts

will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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