

PRENATAL SUSPICION OF POSTERIOR URETHRAL VALVES A CASE REPORT

Farhat J. 1, Pires C. 1, Cunha A.1, Guedes-Martins L. 1,2

1-Centro Materno Infantil do Norte, Centro Hospitalar Universitário de Santo António; 2-Instituto de Ciências Biomédicas Abel Salazar

INTRODUCTION

Posterior urethral valves (PUV) are a congenital pathology that **can be life-threatening** in neonatal period. This condition is the main cause of obstruction of the lower urinary tract in infants and affects **exclusively males**. Approximately **30-45%** of the cases of PUV are **suspected by routine prenatal ultrasound**. There are currently no sufficiently accurate biomarkers to predict postnatal kidney function. The prenatal treatment has limitations, regarding inconclusive benefits on long-term renal function and high rate of complications. We present a case of PUV diagnosed on 3rd trimester routine ultrasound.

CLINICAL CASE

36-year woman
Healthy
G3P2

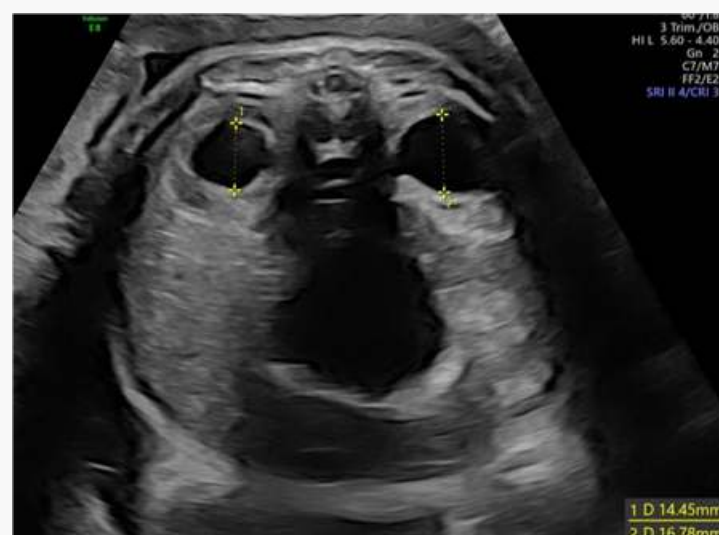


Fig 1. Obstetric ultrasound at 3rd trimester showing both renal pelvis with 14.5mm and 16.8mm.

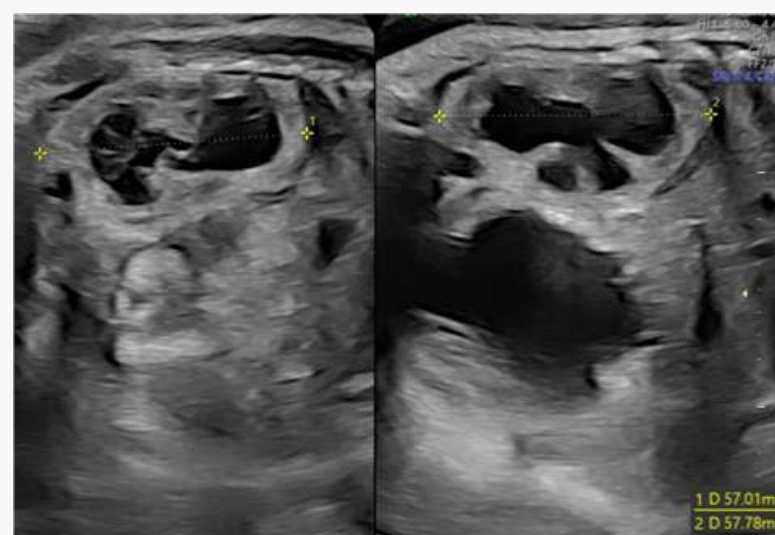


Fig 2. Obstetric ultrasound at 3rd trimester showing largest bipolar diameter of both kidneys of 57mm and 57.8mm.



Fig 3. Obstetric ultrasound at 3rd trimester showing bladder enlargement of 56mm

Delivery was by cesarean section due to non-reassuring fetal status at 36th week and 6th day



Fig 4. Postnatal ultrasound showing largest bipolar diameter of left kidney of 54mm



Fig 5. Postnatal ultrasound showing largest bipolar diameter of left kidney of 53.6mm



Fig 6. Postnatal ultrasound showing normal bladder

The newborn was admitted to neonatal intensive care unit due to **acute-on-chronic kidney disease**. The diagnosis of **PUV** was confirmed by voiding cystourethrogram (VCUG) and valve ablation was performed on 6th day postpartum. After 1 month, the diagnosis of **hyperaldosteronism** was made, and medical treatment was initiated. An episode of hyperkalemia led to hospitalization and peritoneal dialysis. At **4 months** of age, he was **asymptomatic**, undergoing **peritoneal dialysis** and with a serum **creatinine of 0.61mg/dl**.

CONCLUSION

This case report disclose the importance of careful evaluation of fetal urinary tract during 3rd trimester of gestation, as it allows the suspicion of several conditions, namely **PUV**, with associated morbimortality that can be reduced by early and multidisciplinary team approach.

REFERENCES

- Pellegrino C, Capitanucci ML, Forlini V, Zaccara A, Lena F, Sollini ML, et al. Posterior urethral valves: Role of prenatal diagnosis and long-term management of bladder function; a single center point of view and review of literature. *Front Pediatr.* 2022;10:1057092.