



KK Women's and
Children's Hospital

SingHealth

Neonatal urinary ascites of uncommon etiology

R Rai, Narasimhan KL, S Chandran, I Ganeshan, Teo H, Yap TL
, Jacobsen AS

Department of Paediatric Surgery, Dept Of Neonatology, Dept of Radiology, Dept
of Nephrology, K K Women's & Children's Hospital, Singapore



➤ No Disclosures





Neonatal urinary ascitis

- Rare condition
- Etiology : Obstructive uropathy (bladder outlet obstruction, neurogenic bladder, ureteric obstruction), iatrogenic, spontaneous bladder perforation
- Clinical emergency, immediate resuscitation and management (potential life threatening, reversible & good prognosis)



- Aim – To share 2 cases of perinatal urinary ascites with unusual etiology and discuss management challenges



Case 1

History

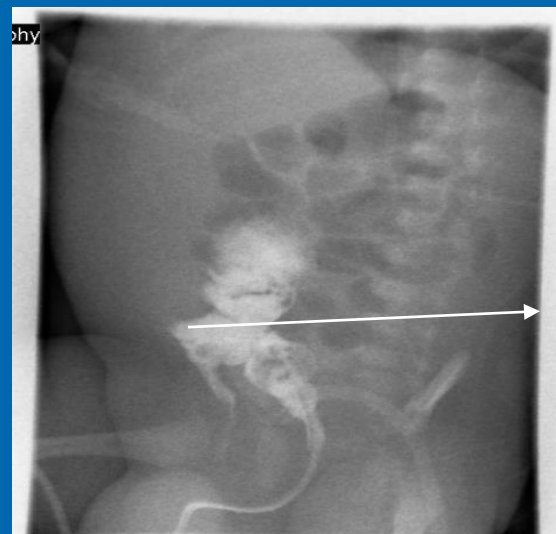
- 17 days old , male, from neighboring country presented with failure to pass urine after birth
- Past history:
 - Born at 35 weeks via LSCS, 1.9 kg
 - Antenatal scan @ 32 weeks- distended bladder
 - Post natal USG- full bladder, b/l severe hydronephrosis
 - Failed catheterisation x2, Suprapubic cystostomy drained urine x 2 weeks



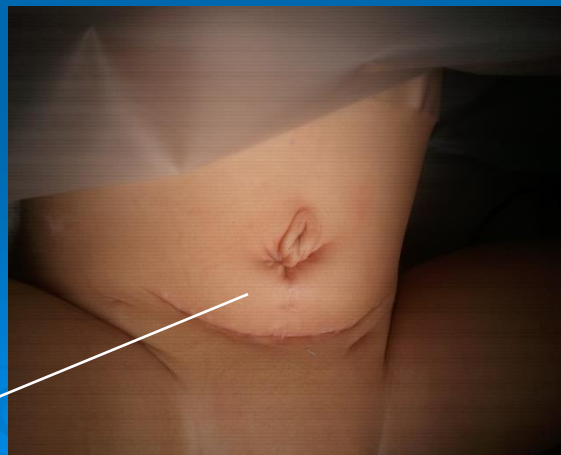
History

- Exploratory laparotomy @ 2 weeks for suspected catheter migration- catheter in place, urine in retroperitoneal space
- Bladder closed with retroperitoneal drain, IDC in situ, post op abdominal distension , abdominal and scrotal wall edema, urine from drain and wound, worsening renal function, acidosis, and sepsis
- Transferred to Singapore

- Imaging revealed ascitis, MCU showed bladder rupture in peritoneal cavity
- Exploration, repair of posterior bladder rent & mini vesicostomy done
- Post operative recovery good, renal function stabilized



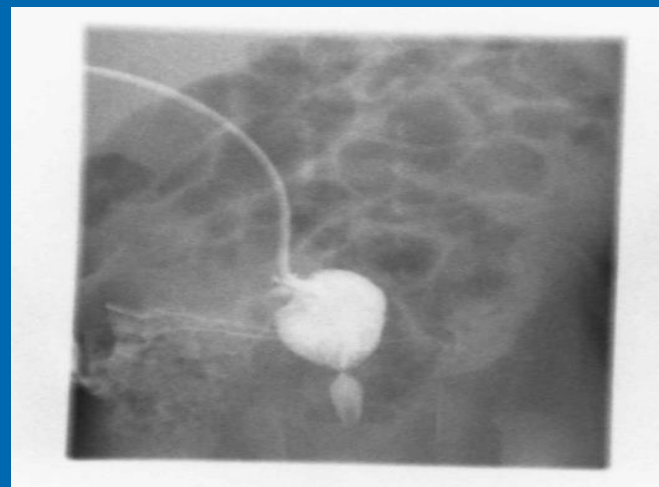
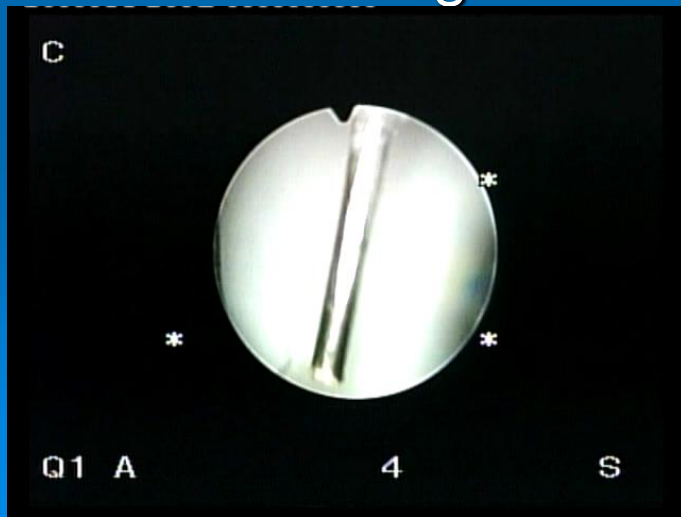
Urinary
leak



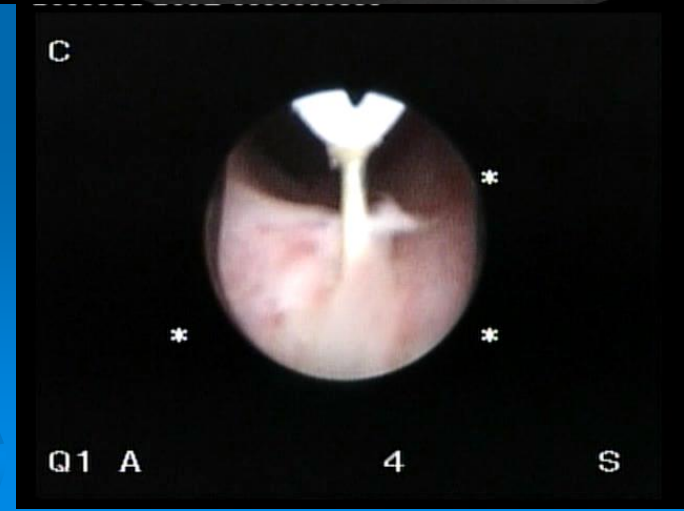
vesicostomy



- 4 weeks later cystogram done showed dilated posterior urethra with PUV
- Fulguration done at 3 months of age



- Post fulguration, poor urinary stream on clamping vesicostomy
- Repeat cystogram through vesicostomy at 9 month, showed anterior urethral obstruction
- Cystoscopy & AUV fulgurated, vesicostomy was closed
- child is voiding well. Had high resting pressures , now on oxybutynin, renal functions normal.





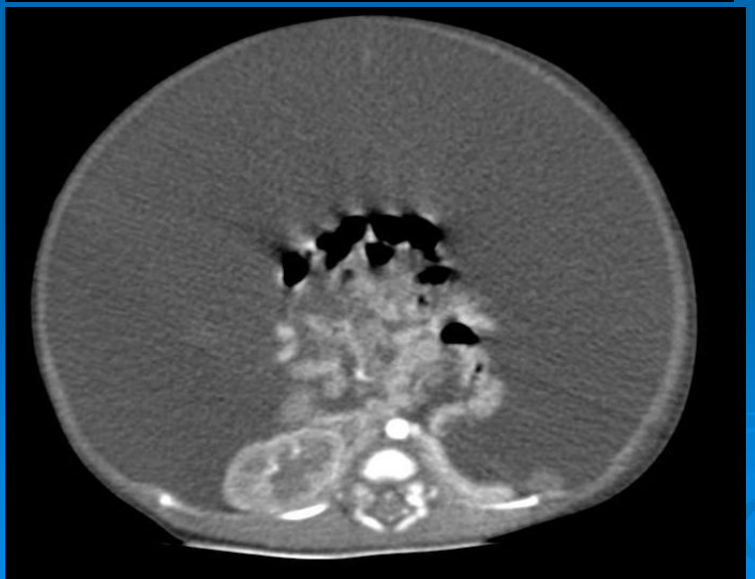
Discussion

- AUV & PUV association with urinary ascitis is rare (European J of Ped Surg 2005,15:449-451, Kumar et al)
- We missed the AUV during first time cystoscopy (radiologically not demonstrated),as we need to carefully look for the flap valve with a hook electrode.
- Patency of distal urethra should be ensured before closing vesicostomy

Case 2

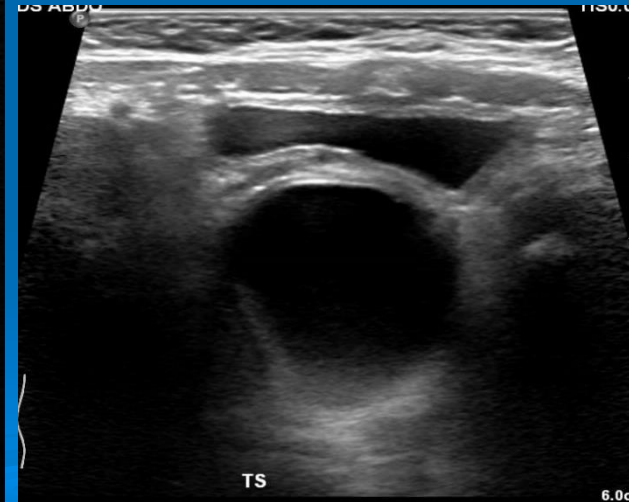
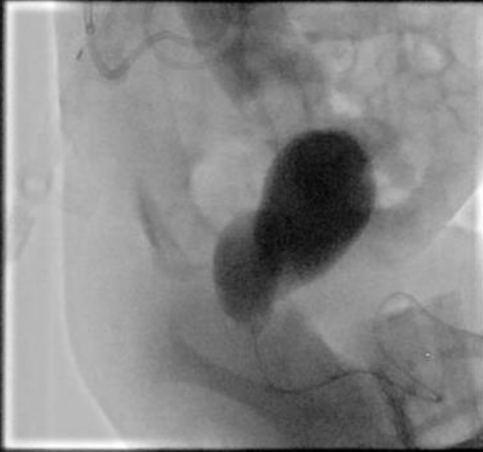
History

- A full term, male neonate with Klinefelter Syndrome presented with a large urinary ascites during perinatal period along with a large cyst next to the suspected bladder detected on antenatal scans.
- He had renal agenesis on left side.
- Severe acidosis, Respiratory distress, poor renal function
- He was managed with Intubation, urgent peritoneal drainage to improve the ventilation and urethral catheterization at birth.




Management

- He needed two weeks of ventilatory support due to gross abdominal distension and three weeks of peritoneal fluid drainage.
- MRI and MCU- bladder outlet obstructed by a large utricular cyst.



- The utricle cyst was not visualized in earlier post natal scans in the presence of ascites and urethral catheter but it remanifested later
- The renal function also normalized gradually thereafter.
- He underwent a vesicostomy and is planned to be managed with excision of the cyst at a later date.

Conclusions

- Neonatal urinary ascites is uncommon and usually presents as a clinical emergency.
 - The diagnosis and treatment can be challenging if the cause is rare .
 - The management of these cases should be planned carefully based on the anatomical and functional status of the urinary system.
- 
- The bottom of the slide features a decorative graphic of several concentric circles, resembling ripples on water, in a lighter shade of blue against the main background.

References

- Neonate with **urinary ascites** but no hydronephrosis: unusual presentation of posterior urethral valves.
Prat E, Seo-Mayer P, Agarwal S.
BMJ Case Rep. 2018 Oct 12;2018. pii: bcr-2018-225053. doi: 10.1136/bcr-2018-225053
- Neonatal urinary ascites: a report of three cases.
Solarin A, Gajjar P, Nourse P.
Case Rep Nephrol. 2015;2015:942501. doi: 10.1155/2015/942501. Epub 2015 Apr 14.
- Urinary ascites due to persistent urogenital sinus: A case report and review of literature.
Loganathan P, Kamaluddeen M, Soraisham AS.
J Neonatal Perinatal Med. 2014;7(1):75-9. doi: 10.3233/NPM-1474413. Review.
- Urinary Ascites Secondary to Bladder Perforation in a Neonate with Posterior Urethral Valves.
Gupta P, Gupta AK, Aggarwala S.
Oman Med J. 2013 Jul;28(4):e051. doi: 10.5001/omj.2013.85.
- Life-threatening hyponatremia and acute renal failure due to iatrogenic neonatal bladder rupture.
Printza N, Ververi A, Bandouraki M, Vargiami E, Gidaris D, Papachristou F.
Urol Int. 2012;88(2):238-40. doi: 10.1159/000331495. Epub 2011 Sep 22.
- Iatrogenic neonatal bladder perforation.
Trigui L, Jallouli M, Hmida N, Mnif Z, Mhiri R, Gargouri A.
Urol Ann. 2011 May;3(2):108-9. doi: 10.4103/0974-7796.82181



KK Women's and
Children's Hospital
SingHealth



Thank You