



Welcome to the tenth issue of 'The PEN' – the Paediatric Education Newsletter. This is a monthly educational bulletin of cases, clinical questions and learning points from recent teaching.



### Are you kiddin'ney? The renal pelvis is too big! Nada Al-Mulla ST1

A 2-day old boy was found to have a dilated left renal pelvis of 11 mm on antenatal scans. He is clinically well, with no abdominal distension or organomegaly. He has passed urine with a normal stream.

#### What is renal pelvis dilatation?

- Anteroposterior (AP) diameter at the renal pelvis measuring:  
>8 mm on antenatal scans.  
>7 mm on postnatal scans.

#### What could it indicate?

- Transient dilatation – resolves postnatally.
- Vesicoureteric reflux (VUR) (5%-10%)
- Ureteropelvic junction obstruction (PUJ) (5%)
- Ureteral obstruction 1.2%
- Posterior urethral valves 0.2 %
- 3%-8% of newborns with upper urinary tract dilatation require postnatal surgery.

#### Unilateral abnormalities

##### Isolated unilateral renal dilatation:

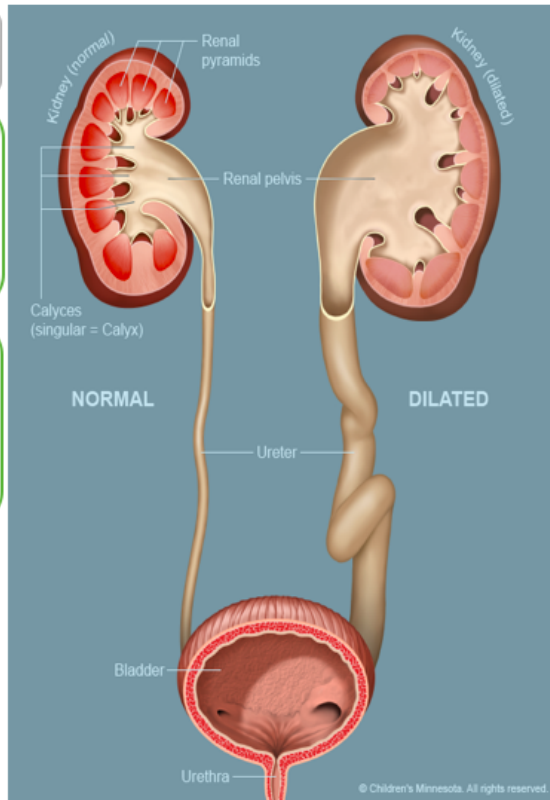
Postnatal ultrasound at 2 weeks of age

##### Unilateral renal dilatation with dilated ureter:

Postnatal ultrasound within 3 days of birth

##### Unilateral renal dilatation with thick walled bladder:

Discuss with urology  
Urgent U/S and MCUG



#### Bilateral abnormalities

##### Isolated bilateral renal dilatation:

Postnatal ultrasound within 2-3 days of birth

Repeat U/S at 2 weeks of age

##### Bilateral renal dilatation with dilated ureter:

Urgent postnatal ultrasound within 12-48 hours and MCUG

##### Bilateral renal dilatation with thick walled bladder:

Discuss with urology  
Urgent U/S and MCUG

### Learning Points from Teaching

Carnitine Palmitoyltransferase Type II Deficiency:

- 1.It is characterised by impaired  $\beta$ -oxidation of long chain fatty acids, resulting in hypoketotic hypoglycaemia, liver disease and myopathy.
- 2.The treatment is focused on providing a low fat, high carbohydrate diet and avoiding prolonged fasting.

### How to manage your patient with a UTI – a review of the current literature S Gardner

1. Should I prescribe prophylactic antibiotics for my patient with recurrent UTI?  
[The Cochrane database of systematic reviews](#)
2. Will the use of prophylactic antibiotics prevent renal scarring?  
[Evidence-based medicine](#)
3. Does the use of long term prophylactic antibiotics in recurrent UTI lead to resistant organisms?  
[Kidney research and clinical practice](#)

### 4. What Imaging do I need to request in my patient with a UTI? T Jeyapalan ST1

Less than 6 months	Responds well to treatment within 48hrs	Atypical UTI	Recurrent UTI
USS (acute)	No	Yes	Yes
USS (6weeks)	Yes	No	No
DMSA (4-6months)	No	Yes	Yes
MCUG	No	Yes	Yes
6months – 3 year	Responds well to treatment within 48hrs	Atypical UTI	Recurrent UTI
USS (acute)	No	Yes	No
USS (6weeks)	No	No	Yes
DMSA (4-6months)	No	Yes	Yes
MCUG	No	No*	No*

<https://www.nice.org.uk/guidance/cg54/chapter/Recommendations#imaging-tests>

### **Bits and Bobs** Gavish Munbauhal GPST2

You examine an 8-year-old boy who presents with a painless lump in the right groin. The right hemiscrotum is empty and the left testis is normal on palpation. His parents do not recall any abnormal findings at NIPE and throughout childhood.

- a) What could have happened to his testis in this case? Why?
- b) Where could the right testis be if it isn't palpable?
- c) What is the incidence of cryptorchidism in term and preterm boys? Why?
- d) What is the main risk associated with cryptorchidism?
- e) What is the impact on subsequent fertility?
- f) What is the role of imaging in assessment?

Link to Answers:

<https://drive.google.com/file/d/1KifKvY5utPnN0auapHuN17ZFx-KdMYD6/view?usp=sharing>

Link to BMJ article (Undescended Testes):

<https://drive.google.com/file/d/1hUAxQzxM6uGdmUphvxmtwkbB-h1SUP00/view?usp=sharing>

To view full text articles click on links and login with [OpenAthens](#) or email the [library team](#)

Visit [Knowledge, Library & Information Service](#) page to find out about services and resources available.