M/VCUG- to do or not to do that is the question!!

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Practicalities of MCUG

- Boys
- Under 1 year of age: non retractile foreskin
- Inability to catheterise or advance catheter
- Over 1 year of age: sensate urethra, moving target
- Girls
- Labial fusion
- Anatomical variation
- Both : older boys/girls: psychological

Inadequate MCUG

- Underfilled
- Overfilled
- Post void
- Urethral visualisation
- Appropriate AP/lateral views

Scenario 1

- Antenatal left MCDK, confirmed on postnatal US. Contralateral normal right kidney, mild ureteric dilatation , no HN on right, normal bladder, normal U&E
- Would you do an MCUG in a girl?
- Would you do an MCUG in a boy?

Scenario 2

- 1 month old boy, febrile UTI, responds quickly to Abx
- US – normal kidneys, bladder, no ureteric dilatation
- Would you do an MCUG?
- If the US showed unilateral/bilateral ureteric dilatation would you do an MCUG?

Scenario 3

- 4 month old girl, febrile UTI, US shows left duplex and dilated upper moiety and ureter with 8mm ureter behind bladder. Currently asymptomatic on antibiotic prophylaxis. No ureterocele
- Would you do an MCUG and why?

Scenario 4

- 6 month old girl, febrile UTI, US shows scarred/dysplastic left kidney, normal right, left ureteric dilatation 5mm behind bladder, uro epithelial thickening
- Would you do an MCUG and why?

Scenario 5

- 5 month old boy, antenatal isolated right HN
- Postnatal, right HN confirmed, normal left kidney, no ureters, normal bladder, AP pelvis 35mm on right
- Would you do an MCUG?

Scenario 6

- 8 year old girl, recurrent UTI's, LUTS, infrequent voider
- US shows scarring right kidney confirmed on DMSA scan (42% function), right ureter seen behind bladder, some uroepithelial thickening. Has been on antibiotic prophylaxis and no UTI for 6 months
- Would you do an MCUG?

What does MCUG assess

- VUR
- Bladder anatomical features
- Bladder outlet
- Functional – eg spinning top urethra in girls
- Functional as part of VUD's

Cost and complications

- Cost quoted to be approximately £192 - £500
- Dysuria
- UTI
- Retention
- Bladder rupture
- These are independent of use of antibiotics before and after MCUG

So when to do?

- INTENTION TO TREAT
- IF IT IS GOING TO CHANGE YOUR MANAGEMENT
- Needs a joined up approach between paediatricians, paediatric urologists, paediatric nephrologists to prevent unnecessary MCUG

THANK YOU

QUESTIONS?