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**Case** 

- A 38-year-old woman, gravid 3 Para 0020 who presented at 31 2/7 weeks of gestation complaining of leakage of clear fluid per vagina.
- PMHX: negative
- PSHX: negative
- OBGYN: 2 x spontaneous abortions at the first trimester
- NKDA
- Meds: Prenatal vitamins
- Fam Hx: non contributory

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**Triage presentation** 

- Spontaneous leakage of fluid at 3 am
- No recent intercourse
- Physical examination:
  - Vaginal pooling
  - Positive fern test from the vaginal pooling
  - Cervix by speculum exam appeared to be 1 cm dilated
  - A limited ultrasound showed a singleton cephalic with an amniotic fluid index (AFI) of 11.2.
  - Electronic fetal monitoring tracing was reassuring not contracting
  - Afebrile.

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### Admission



- Admitted to the antepartum service
- Received intramuscular bethametasone
- Received IV and oral antibiotics
- Within normal limits level II ultrasound on day 2 after admission (AFI of 20.9)
- Elective induction at 34 weeks

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### Labor



- 1 cm dilation
- Received misoprostol followed by augmentation with oxytocin
- Delivered a healthy male infant with Apgar scores of 8 and 9 and a weight of 2470 grams.
- Due to respiratory distress the infant remained in the NICU for 3 weeks before being discharged home to the family.

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### Postpartum



- Maternal postpartum healing was unremarkable
- But... she continued complaining of the passage of clear fluid from her vagina.
- She was changing 6 pads per day,
- Unsure if she was leaking urine or vaginal secretions.
- At her 6 weeks postpartum visit she was referred to the urogynecology clinic for further investigation

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### Urogynecology clinic visit



- Negative cough stress test with a full bladder, but presence of urethral hypermobility
- On speculum exam she had evidence of a small amount of fluid in her vagina
- No evidence of dimpling that could indicate a fistula.
- A simple cystometrogram was performed with a solution of sterile water and methylene blue and negative for detrusor overactivity and negative stress test
- A tampon was inserted and ambulated for 30 minutes and negative

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### Urogyn follow up



- Phenazopyridine was prescribed and requested to repeat the tampon test at home
- Tampons were yellow stained

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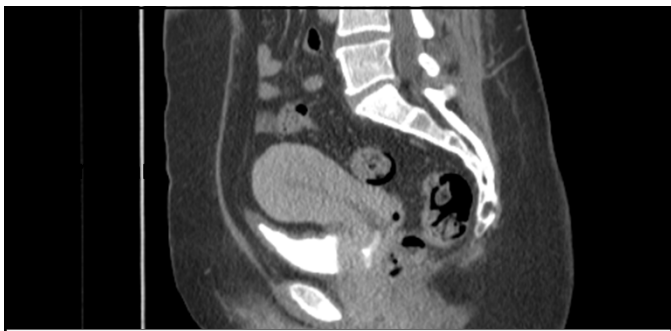
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**CT urogram**



- The CT urogram showed a bilateral duplex renal collecting system with no hydronephrosis
- Right upper pole moiety ureter inserted ectopically in the vagina.
- The left upper pole moiety insertion could not be seen.



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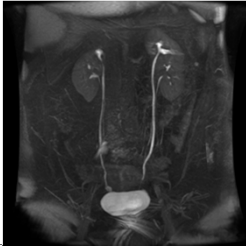
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**MRI urogram**



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### MRI urogram



- MRI urogram also failed to show the second ureter insertion site
- Due to the increased likelihood of Mullerian or other congenital malformations a hysteroscopy was planned
- Urology recommended retrogrades at the time of the hysteroscopy

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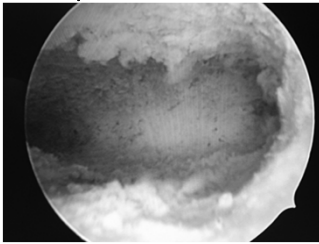
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### Urogyn follow up



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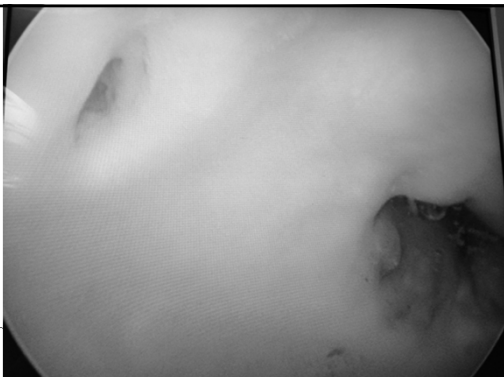
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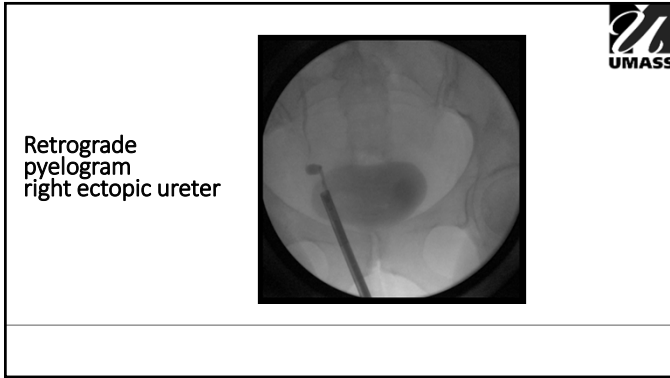
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**Definitive management**

- Renogram indicated adequate right upper pole function
- Case reviewed with pediatric urology
- She underwent an uncomplicated robotically-assisted uretero-uretero anastomosis
- Good patency with no hydronephrosis after the procedure

UMASS

The slide contains the heading 'Definitive management' followed by a bulleted list of four points. The 'UMASS' logo is in the top right corner of the slide frame.

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