



KHOA NGOẠI THẬN MÌU

# SINGLE ECTOPIC URETER

# CLINICAL CASE 1

- 4 years old female
- normal urination + persistent incontinence after toilet training

# US



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# IVP



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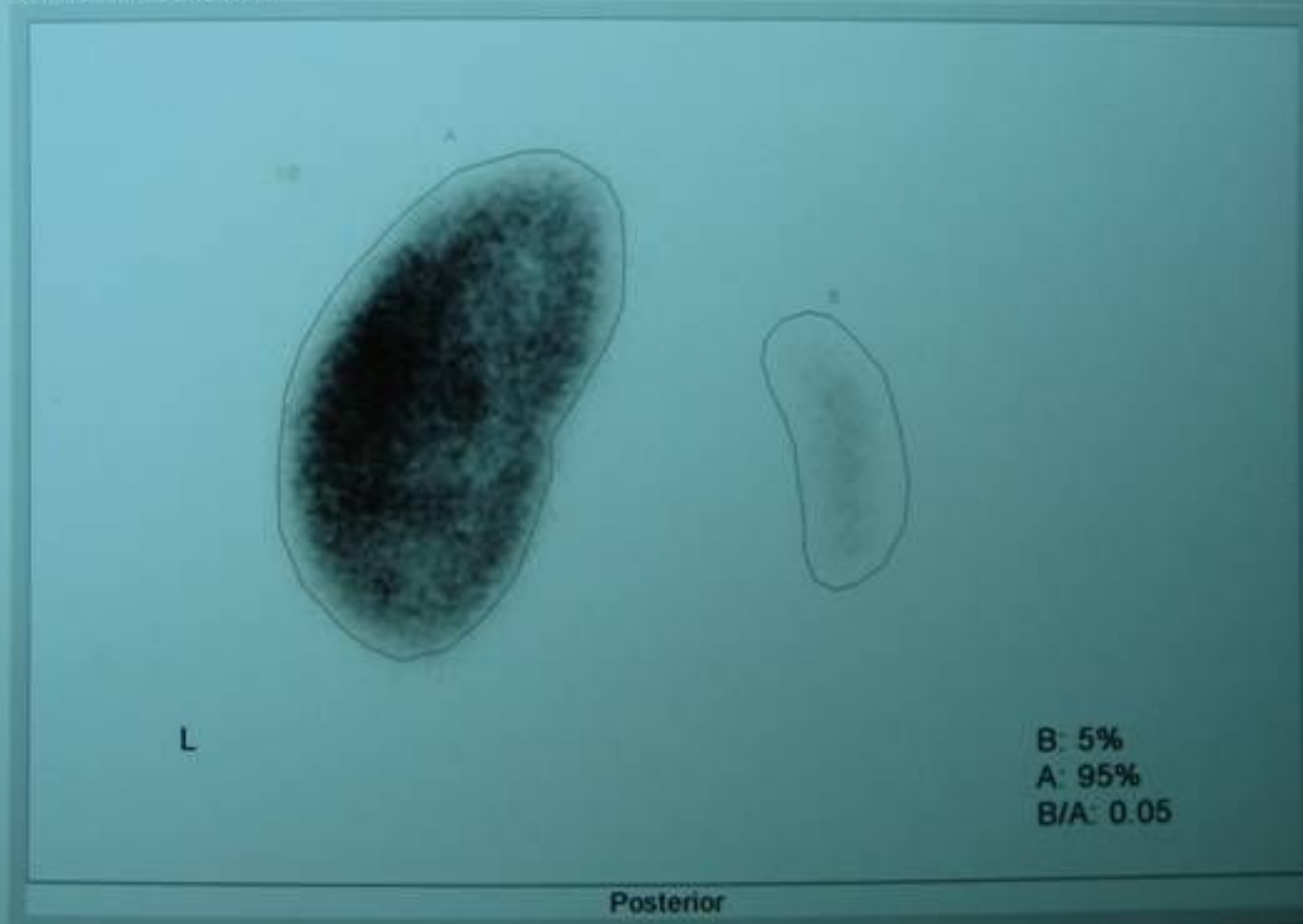
# DMSA

CHO RAY HOSPITAL  
Nuclear Medicine Department

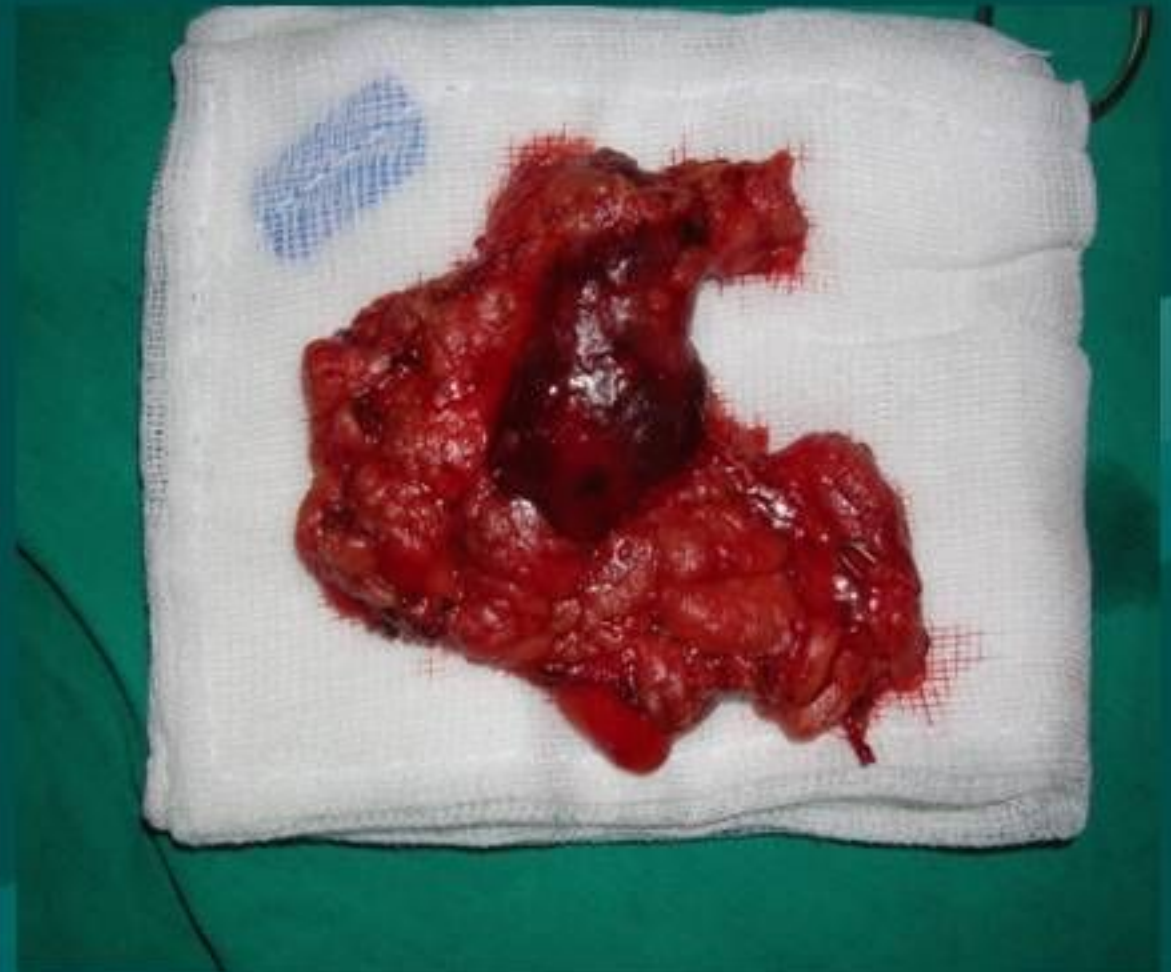
NGUYEN THI DIEU HIEN  
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DMSA  
19/05/2011  
3mCi

Renal DMSA 19/05/2011



# NEPHRECTOMY



# NEPHRECTOMY



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## CLINICAL CASE 2

- 5 years old female
- normal urination + persistent incontinence after toilet training



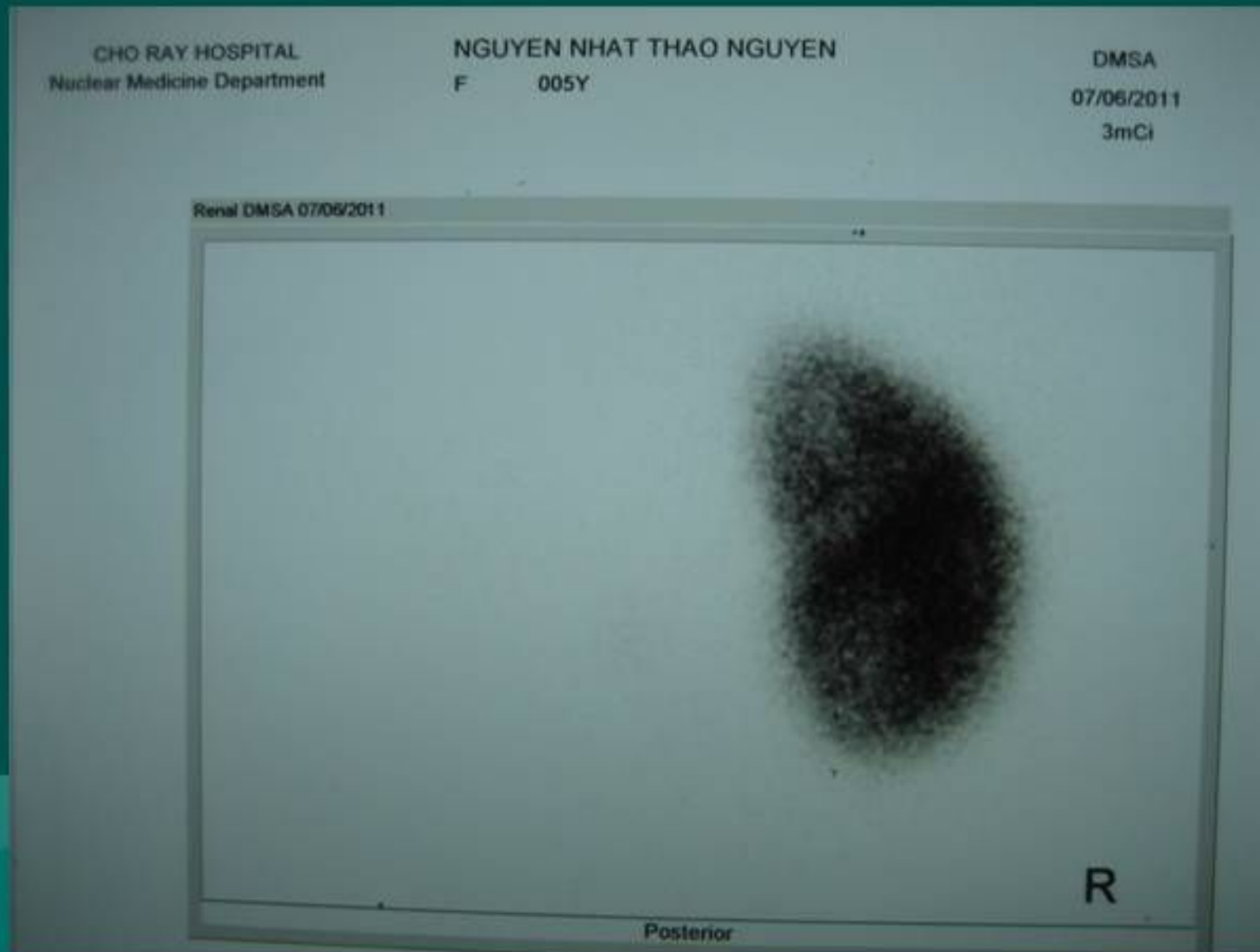
US

- Right- single kidney

# IVP



# DMSA





# VAGINOGRAPHY



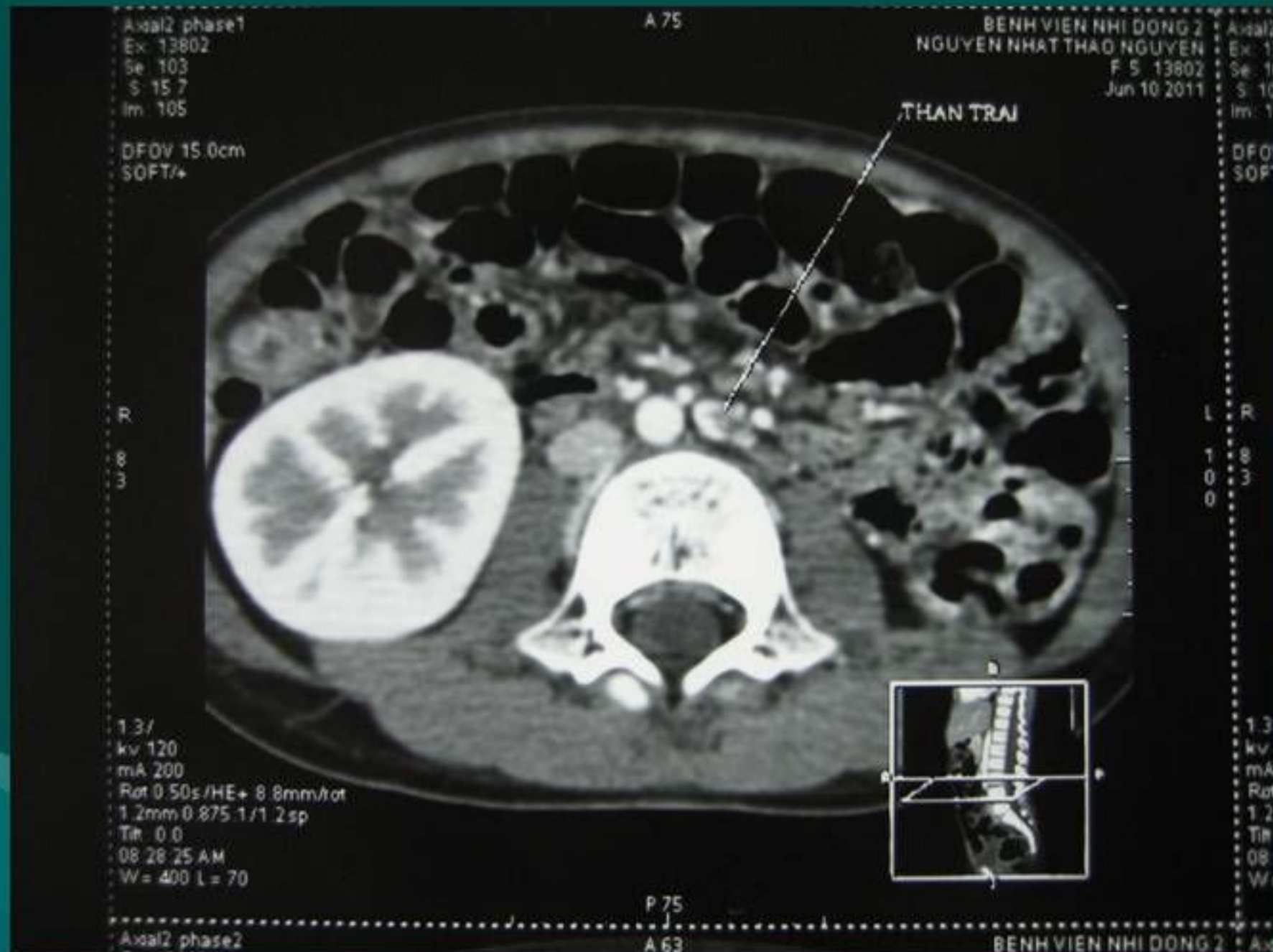
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# URO-CT





# URO-CT





# NEPHRECTOMY



# NEPHRECTOMY



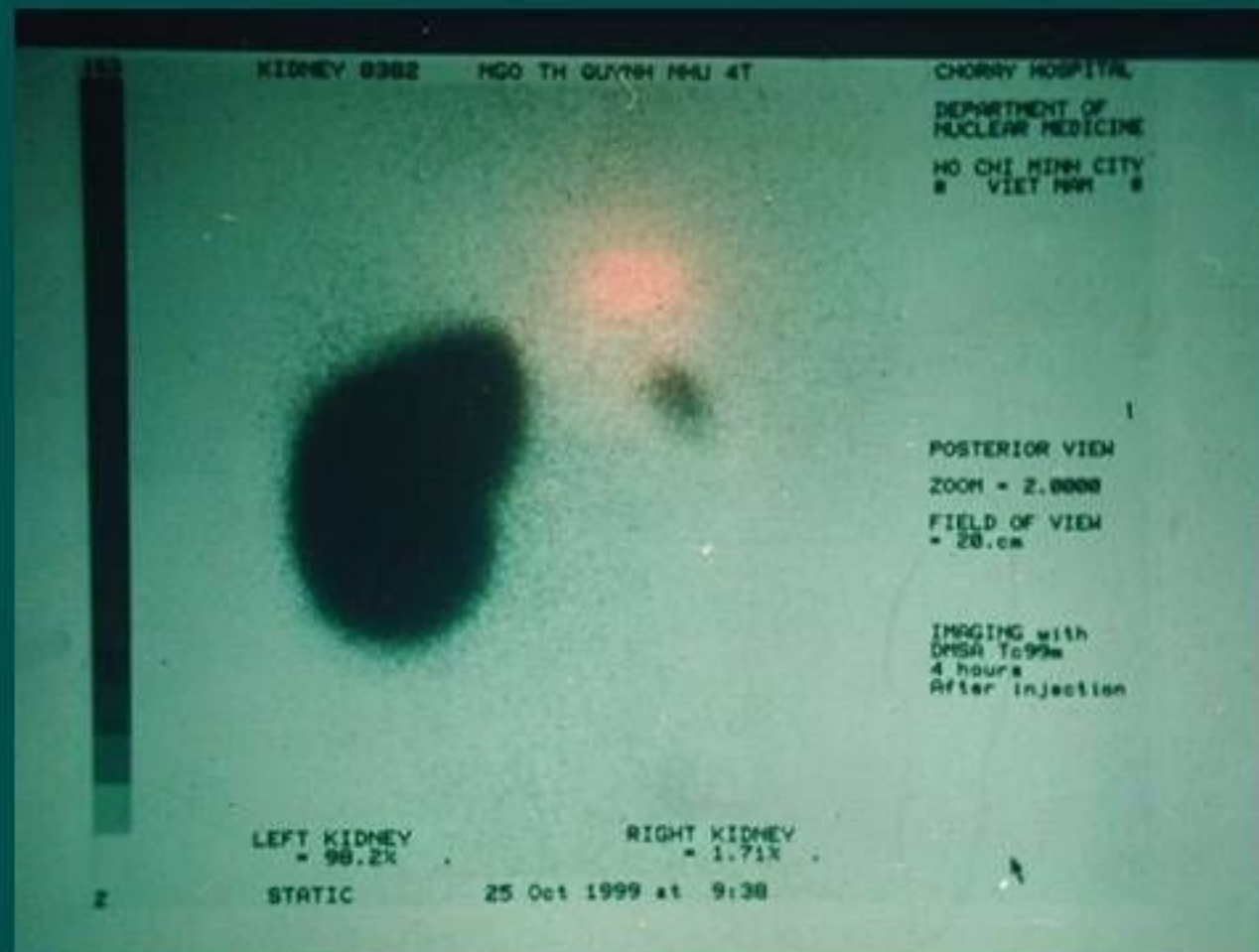


# SINGLE ECTOPIC URETER

- Ureteral ectopia
  - Female=6
  - Ectopic orifice insertion: bladder neck to meatal orifice, genital organ.
  - 80% from upper pole of duplex kidney
  - 20% from solitary kidney
  - Kidney with ureteral ectopia is usually a small, abnormal structure, poorly or non functioning
  - Difficult to diagnose with usual imaging methods.



# PROCEDURES OF DIAGNOSIS



**NO ADDITIONAL STUDY NEEDED.**

**RENAL UNIT SEEN: SURGERY INDICATED.**

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# PROCEDURES OF DIAGNOSIS



**NO LEFT KIDNEY ON DMSA, VAGINOGRAPHY REVEALS LEFT VAGINAL ECTOPIC URETER.**

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# PROCEDURES OF DIAGNOSIS



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# PROCEDURES OF DIAGNOSIS



**DYSPLASTIC KIDNEY WITH NO FUNCTION. NOT IDENTIFIED WITH US, DMSA RENAL SCAN NO UPTAKE**

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## PROCEDURES OF DIAGNOSIS

- ULTRASOUND DETECTS DYSPLASTIC KIDNEY WITH DILATED URETER.
- Tc 99m-DMSA RENAL SCAN DETECTS POOR FUNCTIONING KIDNEY.
- BUT SOME KIDNEYS HAVE NO UPTAKE AND CANNOT BE IDENTIFIED
- VAGINAL ENDOSCOPY NEEDS ANESTHESIA AND IS UNRELIABLE
  - 67% (Mandell: J.Urol 1981; 126: 219-222)
  - 1/6 cases even repeating procedure (Patteras: J.Urol 1999; 162: 821-825)



# CONCLUSIONS

- FEMALE PATIENTS WITH PERSISTENT URINARY INCONTINENCE DESPITE NORMAL VOIDING HABITS NEED:
  - US, IVP
  - DMSA RENAL SCAN.
  - IF RENAL UNIT NOT IDENTIFIED, THEN
- CONTRAST VAGINOGRAPHY
  - SIMPLE
  - NON-INVASIVE
  - AVAILABLE ANYWHERE
- URO-CT

VIDEO



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# VIDEO



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# INTRUMENTS



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