

Basic data

- Sex: female
- Age: 43 y/o

Chief complaint

- R't abdominal pain and fever for 2 days

Present illness

This 43 y/o female pt, who got peptic ulcer history, suffered from R't abd. pain and fever for 2 days. So she came to our ER for help. R't huge palpable mass was noted and abd. sonography revealed a mass of 18cm in diameter. So she was admitted for further evaluation and management.

She also felt GI disturbance and poor appetite for 2 months. Body weight loss 4 kgs and constipation were also told.

PE

- GA: ill-looking
- Cons.: clear
- BT: 38.7°C
- Conjunctiva: pale
- BS clear, RHB
- Abd.: soft, R't flank huge mass
- Back: CV angle knocking pain

Lab data

- CBC/DC:
 - WBC: 12100/ μ L;
NEUT: 81.3%
 - RBC: $3.20 \times 10^6 / \mu$ L
 - HGB: 6.4; MCV: 66.8fL
- Biochemistry:
 - BUN: 9; Cr: 0.9
 - Iron: 10; TIBC: 156; Ferritin: 212.2
- U/A: WBC 30-40/HPF;
RBC 0-1/HPL; Nitrite: (-)
- U/C & B/C: no growth

Clinical course

- 9/17: arrange IVP+abd. CT, Recef-A+GM, 2U PRBC
- 9/18: nephrostomy insertion, multiple pus drainage(100c.c.)
- 9/23: Recef-A+Amikin, then consult Inf.
- 9/23: nephrostomy insertion again, 500c.c. pus was sucked out
- 9/24: pus cul.: *P. mirabilis*, Cefamezine+GM(by Inf.)
- 9/26: AAD
- 9/27: Admission again, Recef-A+GM
- 9/28: 2U PRBC
- 9/29: 4U PRBC
- 9/30: 2U PRBC, R't nephrectomy, 10U PRBC+2U WBC+12U FFP, ICU care
- 10/1: transfer to ward
- 10/7: cystography
- 10/9: pus cul.: <15CFU
- 10/10: MBD

CXR and KUB (9/17)



Sonography (9/17)



- Enlarged R't kidney, diameter 17.4mm
- Multiple hyperechoic foci with acoustic shadow in R't kidney, max 1.6cm
- Imp.: Enlarged R't kidney, nature?
R't renal stones

IVP (9/18)





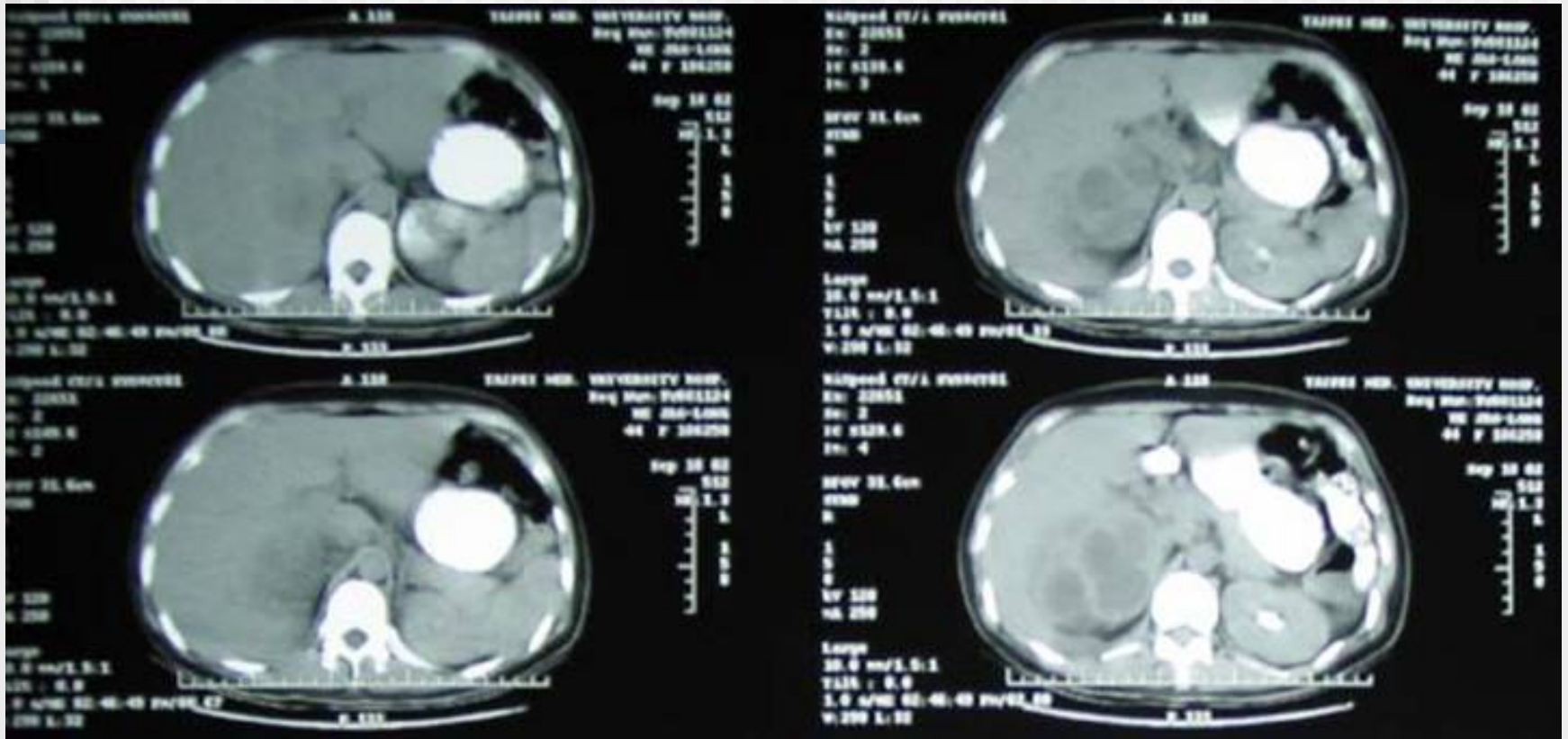


- Conclusion: multiple R't renal stones, with poor function

Differential diagnosis

- Renal agenesis (atrophy)
- Chronic obstructive uropathy
- Renal a. occlusion (atrophy/normal)
- Renal v. thrombosis
- Tumor
- Polycystic kidney
- Abscess
- Xanthogranulomatous pyelonephritis

CT (9/18)—Pre-contrast



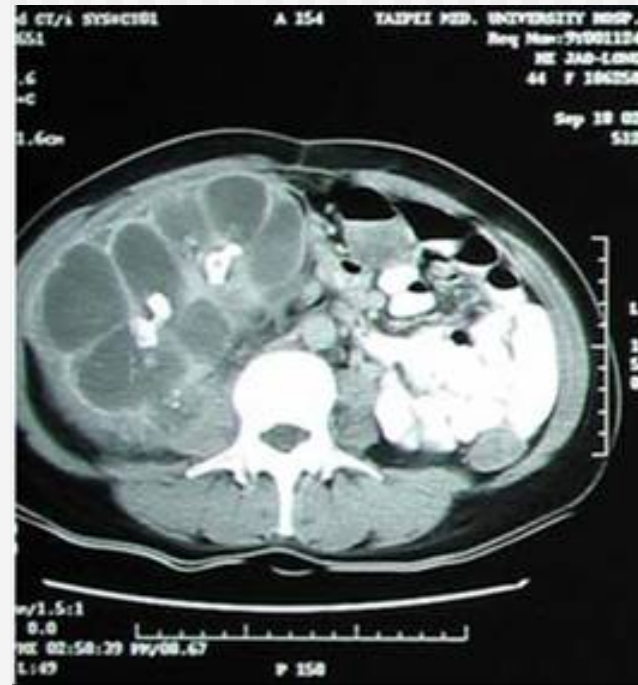
Differential diagnosis

- Tumor with complicated cysts
- Polycystic disease
- Hydatid cyst
- Abscess
- Acute focal pyelonephritis
- Xanthogranulomatous pyelonephritis

CT—Post-contrast



CT—delay phase



CT—delay phase



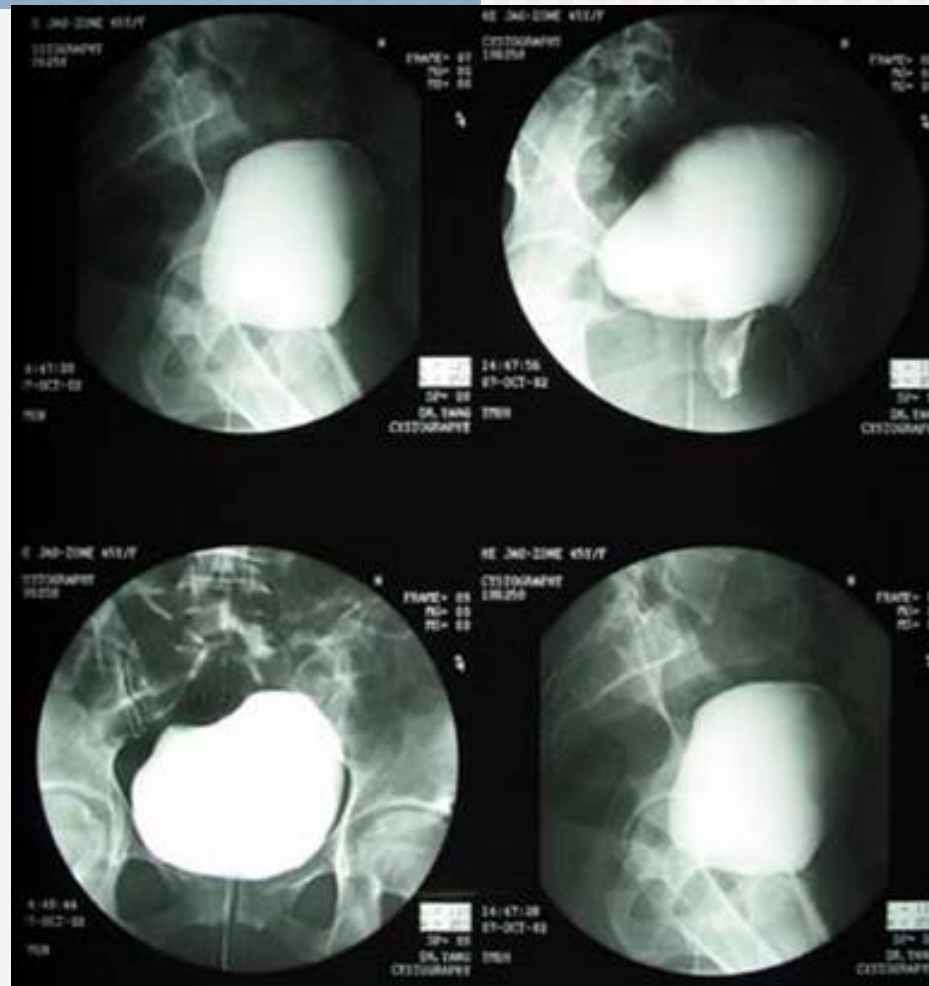
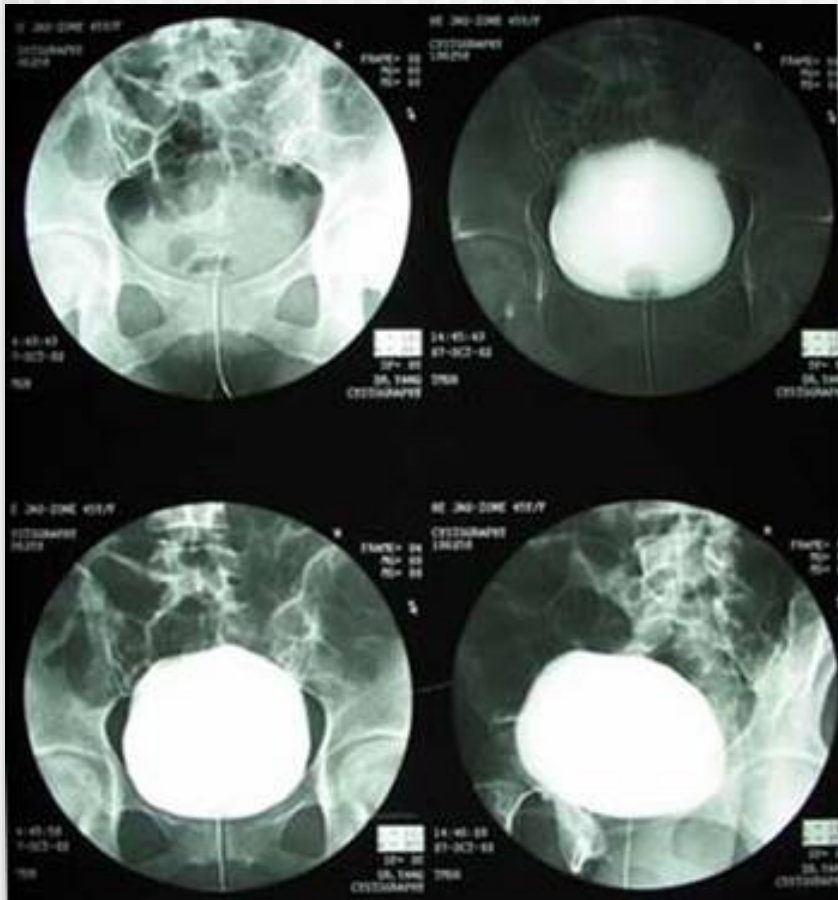
Imp.:

- Xanthogranulomatous pyelonephritis of R't kidney
- A liver cyst

Xanthogranulomatous pyelonephritis

- 75% have renal calculi
- Enlarged nonexcreting kidney in IVP
- The parenchyma is replaced by multiple, rounded, low-density regions, which demonstrate rim enhancement after IV contrast
- Middle-aged woman
- Weight loss, flank pain
- Usually associated with chronic UTI by *Proteus mirabilis* or *E. coli*
- Urinary symptoms are usually absent

Cystography (10/7)



Pathologic report

- **Dx: Xanthogranulomatous pyelonephritis**
- Microscopic findings: ① cluster of foamy histiocytes, multinucleated giant cells and plasma cells, ② purulent exudate with abscess and inf. granulation t. formation, ③ tubular atrophy, interstitial fibrosis, lymphoplasma cell infiltration and hemorrhage in compressed renal parenchyma, ④ no evidence of malignancy

Reference

- Diagnostic imaging, 3rd edition, Peter Armstrong/Martin L. Wastie, 1999
- Merrill's Atlas of Radiographic Positions and Radiologic Procedures, 9th edition, Philip W. Ballinger/Eugene D. Frank, 1999