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Case Study

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CASE PRESENTATION ON UTI WITH PYELONEPHRITIS

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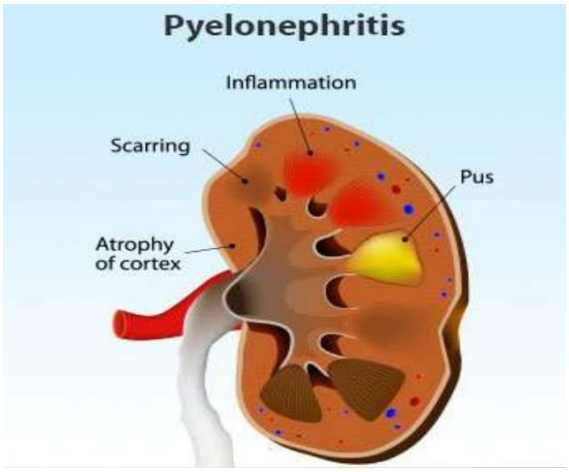
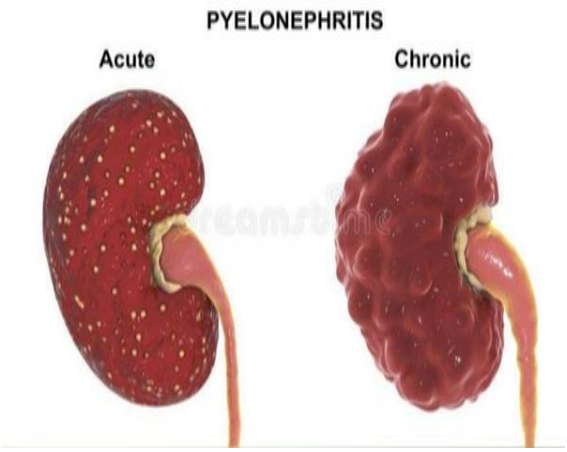
ABSTRACT

Background: Acute pyelonephritis is a potentially organ- and/or life-threatening infection that characteristically causes scarring of the kidney. A population-based study of acute pyelonephritis in the United States found overall annual rates of 15–17 cases per 10,000 females and 3–4 cases per 10,000 male.[1-3] Diagnosing and managing acute pyelonephritis is not always straightforward. Wide variation exists in the clinical presentation, severity, options, and disposition of the disease. The patient with age range of 5-65 years present with lower urinary tract infection symptoms like dysuria, increased frequency in urine, suprapubic pain and classic upper UTI symptoms like flank pain, bank pain with or without systemic symptoms like fever, chills, abdominal pain, nausea, vomiting).[4] With patients at the extremes of age, the presentation may be so atypical that pyelonephritis is not in the differential diagnosis. Infants may present with feeding difficulty or fever, and the elderly may have mental status change or fever.

INTRODUCTION

Pyelonephritis is a type of urinary tract infection where one or both kidneys become infected. They can be infected by bacteria or a virus. It can cause people to feel very sick and it requires treatment. This article will tell you more about kidney infection and what to do about it. We present 46 years old female women presented with loin pain since four days with severe bleeding, chills, and fever for two days. She was treated with escalating spectra of intravenous antibiotics without improvement. Urine and blood cultures were sterile, while radiological investigations were suggestive of pyelonephritis. Mild hepatic dysfunction prompted consideration of scrub typhus and she improved with empirical doxycycline. We, therefore report a case of acute pyelonephritis caused by scrub typhus.





CASE STUDY

A 46 years old female patient was admitted in a female medical ward bearing I.P NO 689854/171108155 with chief complaints of fever since two days with chills and abdominal pain since four days with severe bleeding since two days.

Past patient history: UTI since 5 days.

Objective Evidence

VITALS	DAY 1	DAY 2	DAY 3
TEMPERATURE	98.6	98.2	98.2
BLOOD PRESSURE (mm hg)	110/90	110/80	120/90
PULSE RATE (b/min)	72	82	82
RESPIRATORY RATE (b/min)	22	22	22

She was a little overweight with a body condition score (BCS) of 6 on a 9-point scale. Her body temperature is slightly raised, pulse and respiration were within normal limits.

Biochemistry

Random	**284**	**Below 200 mg/dl**
Fasting	109	Between 72 to 108
2 HR Post Prandial	183	Below 140 mg/dl

Electrolytes

	Values	**Limit**
Sodium	132 mEq/L	135-147 mEq/L
Potassium	4.2 mEq/L	3.5 – 5mEq/L
Hba1c	6.8	6 - 7
Renal function test		
Urea	20mg/dl	7 to 20mg/dl
Urine analysis report		
Pus cells	5-6 (1-2/hpf)	1 – 2 cells/hpf
Kub test	Normal	

ASSESSMENT

From the subjective and objective evidence it is assessed as URINARY TRACT INFECTIONS with PYELONEPHRITIS. Urine culture is mandatory in any patient with pyelonephritis, whether treated in an inpatient or outpatient setting, because of the possibility of antibiotic resistance.

Treatment

Inpatient care includes the following:

- Supportive care
- Monitoring of urine and blood culture results
- Monitoring of comorbid conditions for deterioration
- Maintenance of hydration status with IV fluids until hydration can be maintained with oral intake
- IV antibiotics until defervescence and significant symptomatic improvement occur; convert to an oral regimen tailored to urine analysis

Plan

Antibiotic therapy is essential in the treatment of a pyelonephritis and prevents progression of the infection. Urine culture and sensitivity testing should always be performed, and empirical therapy should be tailored to the infecting uropathogen.[5]

S.no	Brand name	Generic name	Dose	Frequency	D1	D2	D3
1	INJ.TAZIRA	PIPERACILLIN +TAZOBACTUM	4.5 g IV	8 th hourly	G	G	G
2	TAB.DOLO	PARACETAMOL	650 mg	1-1-1	G	G	G
3	INJ.PCT	PIRACETUM	200 mg	SOS	G		
4	IV FLUIDS	SODIUM CHLORIDE	100 ml/hr	1 hourly	G		
5	TAB PAUSE MF	MEFENAMIC ACID+TRANEXAMIC ACID	250mg oral	1-0-1	G	G	G

Piperacillin+tazobactam is used to treat a wide variety of bacterial infections. It is a penicillin antibiotic. It works by stopping the growth of bacteria.

Paracetamol - decrease the elevated temperature

Piracetum – Supplementary to boost the brain.

MEFENAMIC ACID+TRANEXAMIC ACID

Drugs on Discharge

Condition of the patient improved and prescription revised for discharge.

Discharge summary is as follows:

- TAB.NIFTRAN 100 mg 1-0-1 FOR 15 days (AF)
- INJ.TAZIRA 4.5 g ,8 hourly for 3 days
- TAB.PAUSE MF 1-1-1 FOR 2 days
- TAB.MEFTAL 500 mg 1-0-1 continous

Patient Counselling during discharge

- Take all the medicine you were prescribed, even if you feel better. Reoccurance of infection may be due to improper medication adherence and which will be a hindrance to treat further infection. It may also make a future infection harder to treat.
- Drink 8 to 12 glasses of fluid every day. Clear fluids, such as water, are best. This may help flush the infection from your system. Keep your genital area clean. Use mild soap. Rinse with water.
  Always wipe the genital area from front to back.
- Urinate frequently. Avoid holding urine in the bladder for a long time.

REFERENCES

1. Nicolle LE. Epidemiology of urinary tract infection. *Infect Med*., 2001; 18: 153–162.
2. Foxman B, Klemstine KL, Brown PD. Acute pyelonephritis in US hospitals in 1997: hospitalization and in-hospital mortality. *Ann Epidemiol*, 2003; 13(2): 144–150.
3. Nicolle LE, Friesen D, Harding GK, Roos LL. Hospitalization for acute pyelonephritis in Manitoba, Canada, during the period from 1989 to 1992; impact of diabetes, pregnancy, and aboriginal origin. *Clin Infect Dis*., 1996; 22(6): 1051–1056.
4. Czaja CA, Scholes D, Hooton TM, Stamm WE. Population-based epidemiologic analysis of acute pyelonephritis. *Clin Infect Dis*., 2007; 45(3): 273–280.
5. Dipiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM. Pharmacotherapy:A Pathophysiologic Approach. 6th ed. New York: The McGraw-Hill Companies, 2005.