WELCOME TO CENTRAL CASE PRESENTATION

Department of Respiratory Medicine
Dhaka Medical College Hospital

A 23-year-old male with fever, loin pain & shortness of breath

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Particulars Of The Patient

- **Name** : Mr. X
- **Age** : 23 years
- **Sex** : Male
- **Occupation** : Student
- **Religion** : Islam
- **Marital status** : Unmarried
- **Address** : Chandpur
- **Date of Admission** : 15/06/24
- **Date of Examination** : 16/06/24

Presenting Complaints:

- **Fever for 2 months**
- **Left sided loin pain for 1.5 months**
- **Shortness of breath for 5 days**

History of Present Illness:

Fever was for 2 months

- **High grade with chills & rigor**
- **Continued, reduced by paracetamol**
- **Highest temp. was 104° F**

History of Present Illness:

Not associated with

- **Headache**
- **Joint pain**
- **Altered consciousness**
- **Convulsion**
- **Travelling & diarrhoea**

Took several courses of oral & IV antibiotic

- **Not cured**

History of Present Illness...

Left sided loin pain for 1.5 months

- **Dull in nature**
- **Not radiating**
- **Associated with**

  Burning sensation
  Increased frequency
  Not mixed with blood

History of Present Illness...

Shortness of breath for last 5 days

- **Progressive (mMRC grade 3)**
- **Aggravated on exertion**
- **No relieving factor**
- **No preceding leg swelling**
- **Not aggravated by lying flat**

History of Present Illness...

On query,

Cough for 5 days

- **Productive**
- **Purulent sputum, not foul smelling**
- **Not mixed with blood**
- **Not related to posture change**

History of Present Illness...

Unintentional weight loss

- **14 kg in last 4 months.**
- **Decreased appetite.**
- **No history of**

  Heat intolerance, palpitation, sweating
  Diarrhoea
  Polyuria & polydipsia

History of Present Illness...

He was

- **Normotensive**
- **Non diabetic**

Normal bowel and bladder habit

History of Past Illness:

He gave H/O

- **Two episodes of purulent urethral discharge**
- **First episode four years back**
- **Second episode two years back**

No H/O

- **Tuberculosis**
- **Surgery**
- **Blood transfusion**

Treatment History:

Before admission, he took Anti TB drugs for 7 days

- Prescribed by a local physician

Then he was referred to a medical college hospital

- Anti TB therapy was continued

Treatment History....

His condition was deteriorating

- **Referred to Respiratory medicine dept. of DMCH**
- **Injectable drugs were started**

Family History:

No history of similar illness in his family.

All are in good health.

Personal history:

- Current smoker of 1 pack year
- H/O men sex with men
  - multiple times in last 4 years
- IV drug abuse for last 3 years
- No H/O alcohol intake

Socioeconomic History:

Lower-middle class family.

Lives in brick-built house.

Drinks tubewell water.

Access to good sanitation.

History of allergy:

No history of allergy to any particular

- **Food**
- **Drugs**
- **Substance**

Immunization history:

He is vaccinated according to

- **EPI schedule**
- **Two doses of covid-19 vaccine**

Physical Examination

General Examination

- **Appearance : Looks ill & dyspnic**
- **Body Built : Below average**
- **Co-operation : Co-operative**
- **Decubitus : On choice**
- **Oral Cavity : Oral thrush**
- **Anemia : Absent**
- **Jaundice : Absent**

General Examination...

- **Cyanosis : Absent**
- **Clubbing : Absent**
- **Koilonychia : Absent**
- **Leukonychia : Absent**
- **Edema : Absent**
- **Dehydration : Absent**

General Examination...

- **Thyroid gland : Not enlarged**
- **Lymph Node : Not palpable**
- **JVP : Not Raised**
- **Bony tenderness : Absent**
- **Body hair distribution : Normal**
- **A cannula in situ in left hand**

General Examination...

- **Skin condition : Multiple pruritic ring shaped erythematous scaly lesion with central clearing in neck & limbs.**
- **Pulse : 108 b/m, Regular**
  Normal volume & character
- **Blood pressure : 100/60 mm of Hg, No postural drop**

General Examination...

- **Temperature : 103°F**
- **Respiratory Rate : 26 breaths/min**
- **SpO2 : 94% in room air**
- **Bed side urine test : Negative for protein & sugar**

Systemic Examination

Respiratory system:

Inspection :

- **Dyspnic**
- **Use of accessory muscles of respiration.**
- **Respiratory rate : 26 breaths/min**
- **Shape of the chest : Normal**
- **Movement of the chest : Bilaterally symmetrical**

Respiratory system...

Palpation :

- **Trachea : Central**
- **Apex beat : Left 5th ICS, just medial to mid clavicular line.**
- **Chest expansion : Symmetrical, 3 cm**
- **Vocal fremitus : Normal**

Respiratory system...

Percussion note :

- **Resonant all over the lung fields.**
- **Upper border of liver dullness in right 5th ICS along mid clavicular line.**

Respiratory system...

Auscultation :

- **Breath sound : Vesicular**

  No added sound

- **Vocal resonance : Normal**

Precordium Examination:

- **No visible pulsation or Scar mark**
- **Apex beat : Present in left 5th ICS, just medial to mid clavicular line, normal in character.**
- **No para sternal heave, palpable P2, epigastric pulsation or thrill**
- **1st & 2nd Heart sound : Normal**
- **Murmur : Absent**

Abdomen Examination:

- **Inspection: Scaphoid, umbilicus centrally placed. No visible mass/pulsation/scar/superficial vein**
- **Palpation:**
  - **Tender left lumbar region, no palpable mass.**
  - **Liver, Spleen, Kidney: Not palpable**
- **Percussion : No fluid thrill or shifting dullness**
- **Auscultation : Bowel sounds present, no bruit.**
- **External Genitalia: Normal**

Fundoscopic examination:

- **Right Eye : Normal**
- **Left Eye : Normal.**

Other Systemic Examination:

No abnormality detected

Salient Feature

Mr. X, 23-year-old unmarried, Muslim, student hailing from Chandpur got admitted into Respiratory Medicine department, DMCH on 15/06/24 with the complaints of fever for 2 months, left sided loin pain for 1.5 months & dyspnea for 5 days. Fever was high grade with chills & rigor, continued & the highest temp. was 104° F.

Salient Feature....

He also complained of dull aching left sided loin pain for 1.5 months associated with dysuria and increased frequency. He had dyspnea for 5 days (mMRC grade 3), no orthopnea & PND. He also had cough with purulent sputum for same duration without hemoptysis.

Salient Feature....

The patient gave H/O unintentional weight loss, 14 kg in last 4 months with anorexia. He is normotensive, non diabetic, bowel & bladder habit was normal. He had H/O genital infections for twice, repeated men sex with men for 4 years and IV drug abuse for 3 years.

Salient Feature....

For these, he took multiple antibiotics for several times & was given Anti TB drugs for 7 days. Due to deterioration of his condition he was referred to Respiratory medicine dept. of DMCH.

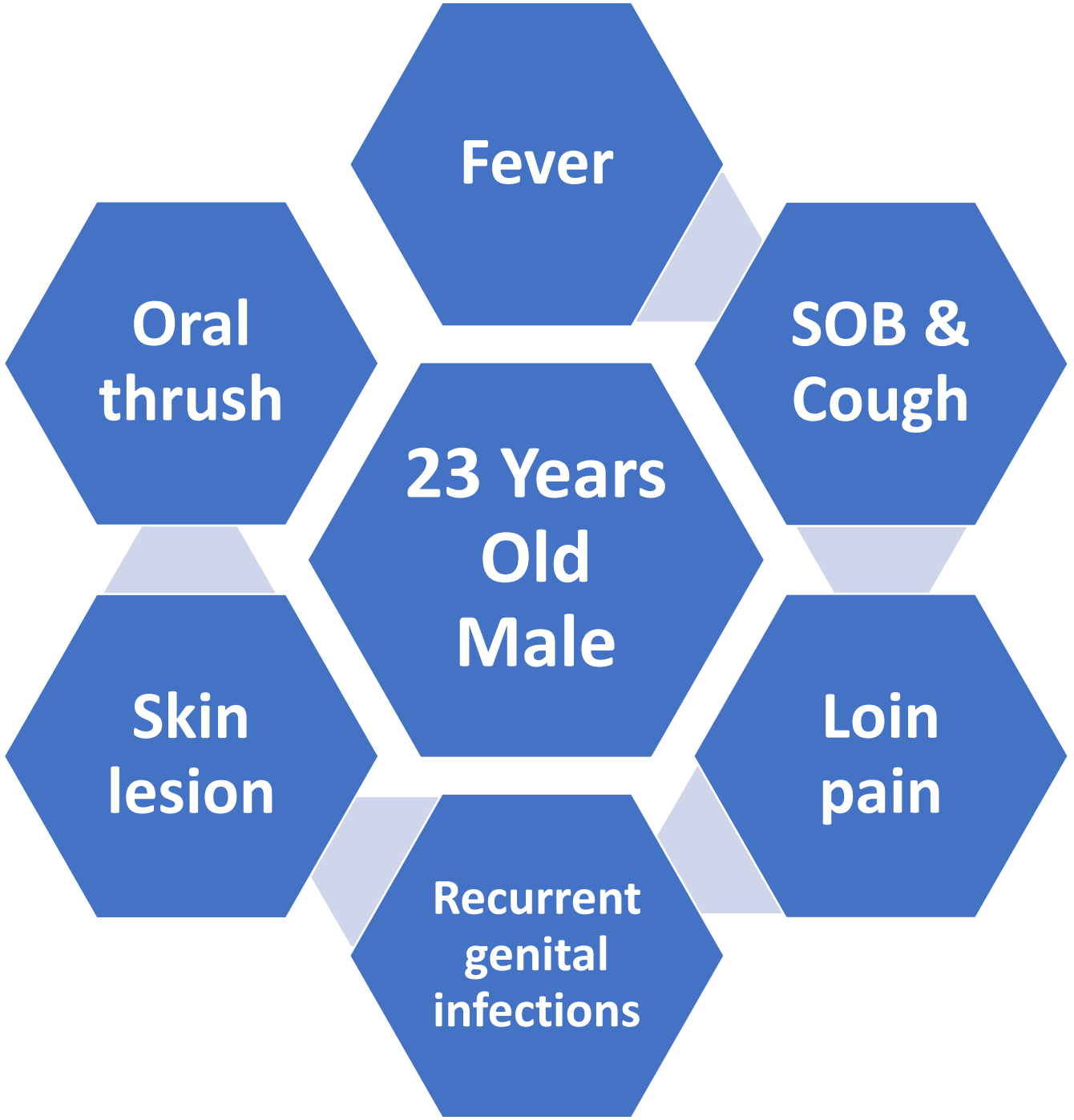
Salient Feature....

On examination, patient looks ill & dyspnic, pulse-108b/m & regular, BP-100/60 mm of Hg, respiratory rate-26breath/min, SpO2-94% in room air, temperature 103°F. Oral thrush present. There are multiple erythema annulare in neck & limbs. Tenderness in left loin.

Fundoscopy & other system examination reveals no abnormality.

Problem list

Problem List



Provisional Diagnosis

Provisional Diagnosis

AIDS with Disseminated TB (Pulmonary & Renal)

Differential Diagnosis

Differential Diagnosis

- **AIDS with Pneumocystis jirovecii pneumonia with Renal Abscess (Left)**

- **Invasive pulmonary aspergillosis**
- **Septic pulmonary emboli**
- **Infective endocarditis**

HIV infection with Renal abscess (Left)

Investigation

Complete blood count

Investigation	Values
Hb	14 gm/dL
ESR	102 mm in 1st hour
WBC	9000/ cmm
Neutrophil	63%
Lymphocyte	32%
RBC	5.2 m/uL
HCT	43%
MCV	82 fl
Platelet	340000/ cmm

CRP, Renal Function

Investigation	Value
CRP	72 mg/L
Electrolytes	Within normal limit
Creatinine	0.7 mg/dL
Urine R/M/E	Normal

Liver Function Test & Blood Sugar

Investigation	Value
S. Bilirubin	1.5
SGPT	32
RBS	4.61 mmol/L

HBV & HCV

Investigation	Value
HBsAg	**Negative**
Anti HCV	**Negative**

D-dimer, MT & Malaria Test

Investigation	Value
D dimer	7.52 mg/L
MT	02 mm (Not significant)
ICT for Malarial Parasite	Negative

Blood & Urine Culture sensitivity

Investigation	Value
Blood C/S	**Staphylococcus aureus**
Urine C/S	**No growth**

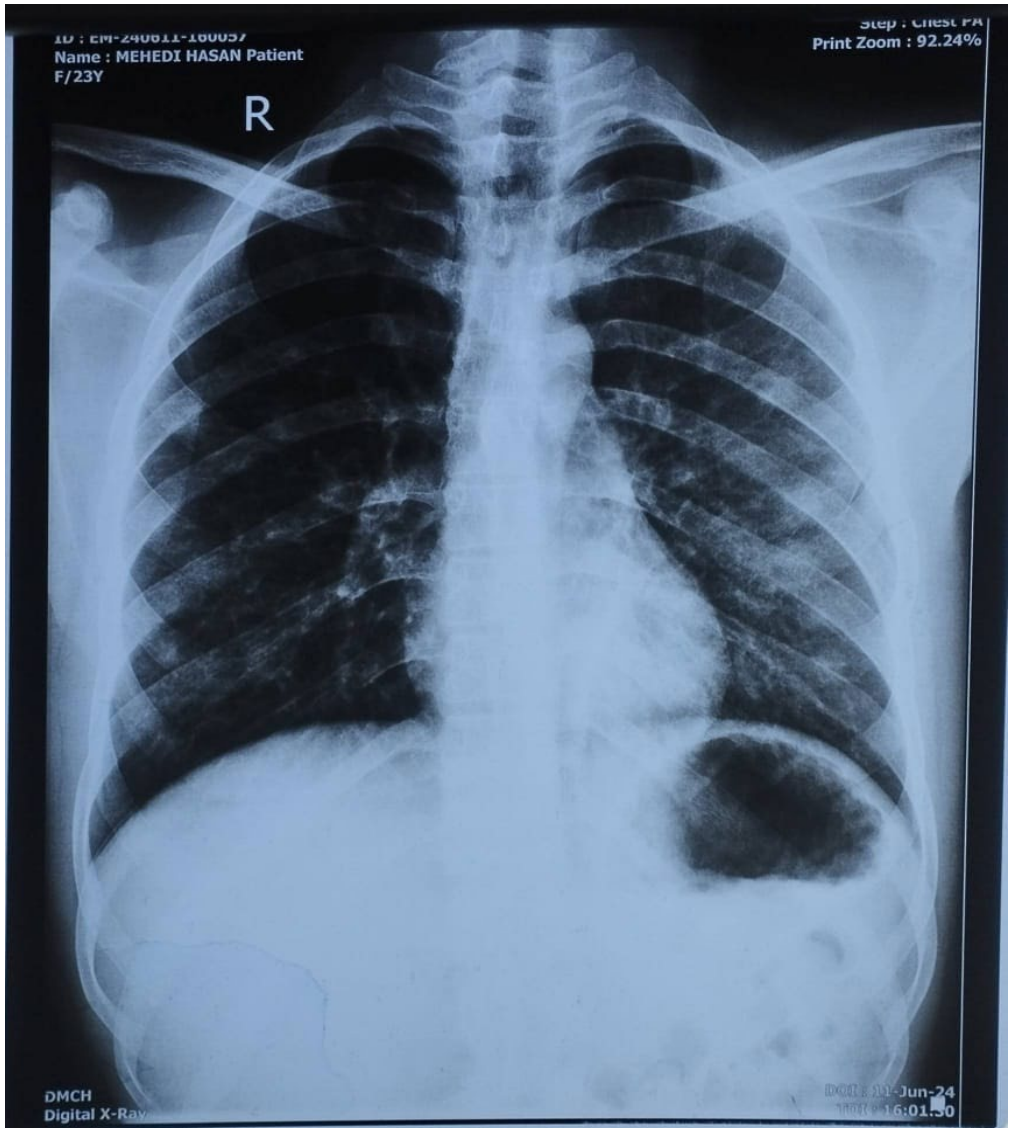
Sputum Study

Investigation	Value
Gram stain	Negative
Culture & sensitivity for bacteria & fungus	No growth
AFB & Gene Xpert Ultra	Negative for MTB

Chest X-Ray P/A View

Findings:

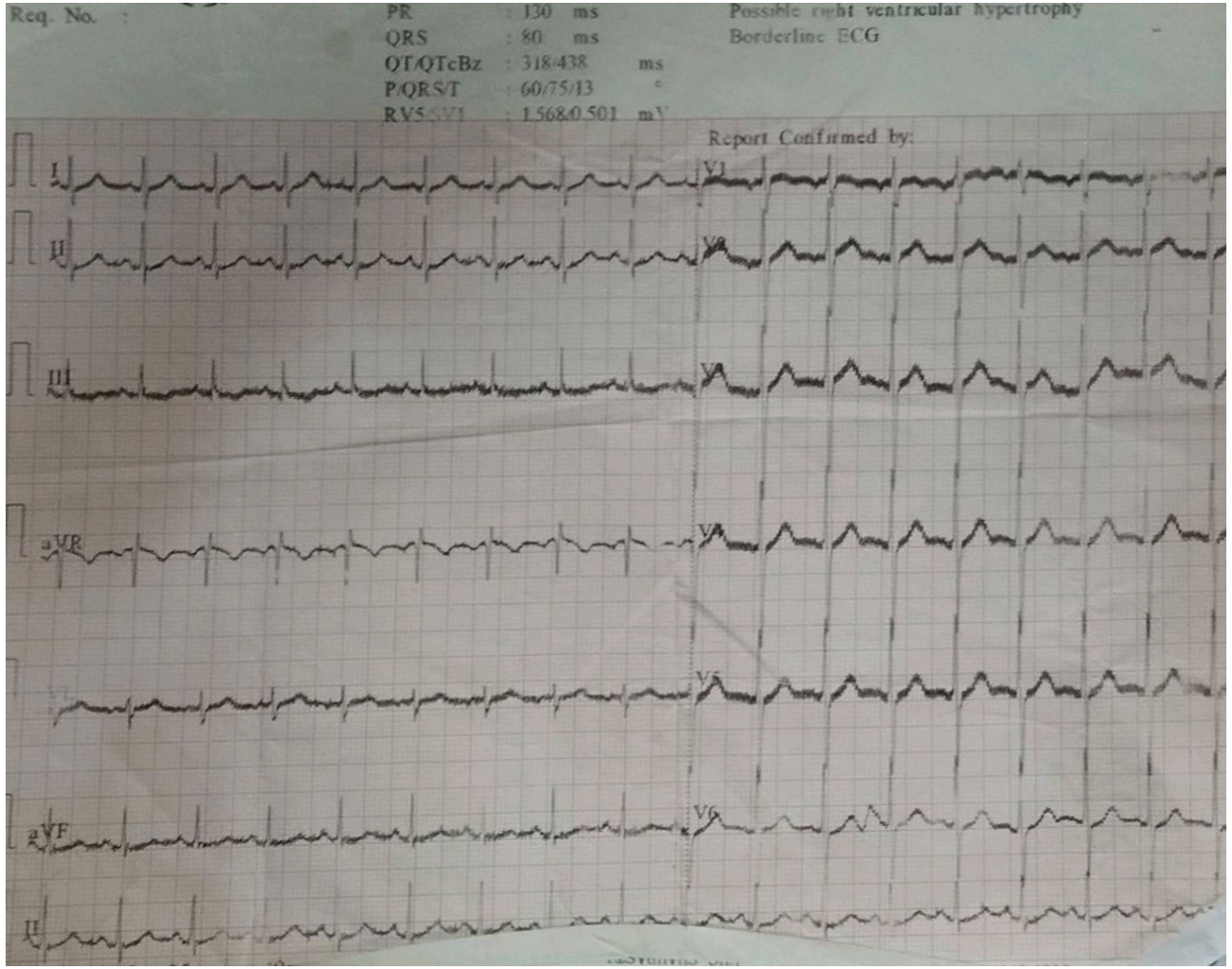
Bilateral peripheral pulmonary nodules



ECG

Findings:

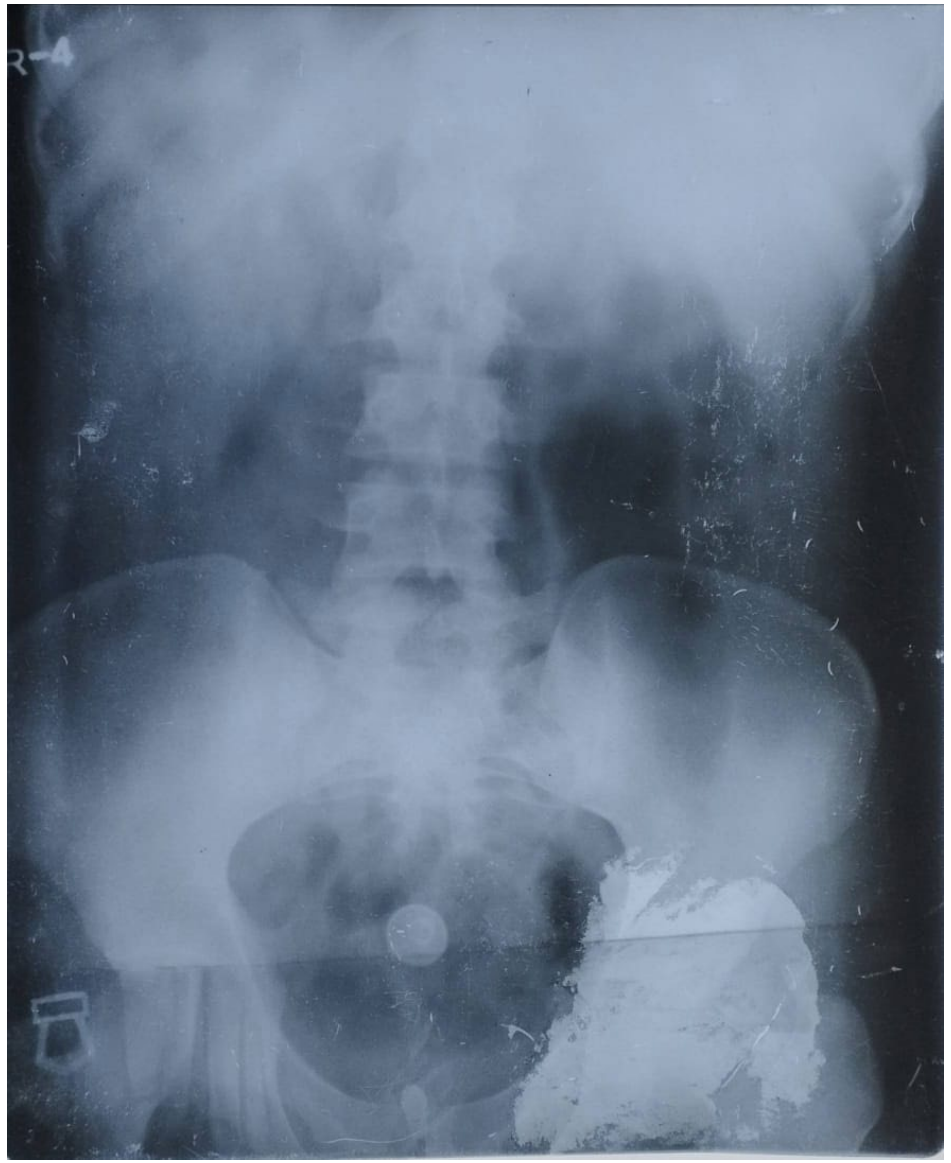
Sinus tachycardia



X-Ray Abdomen

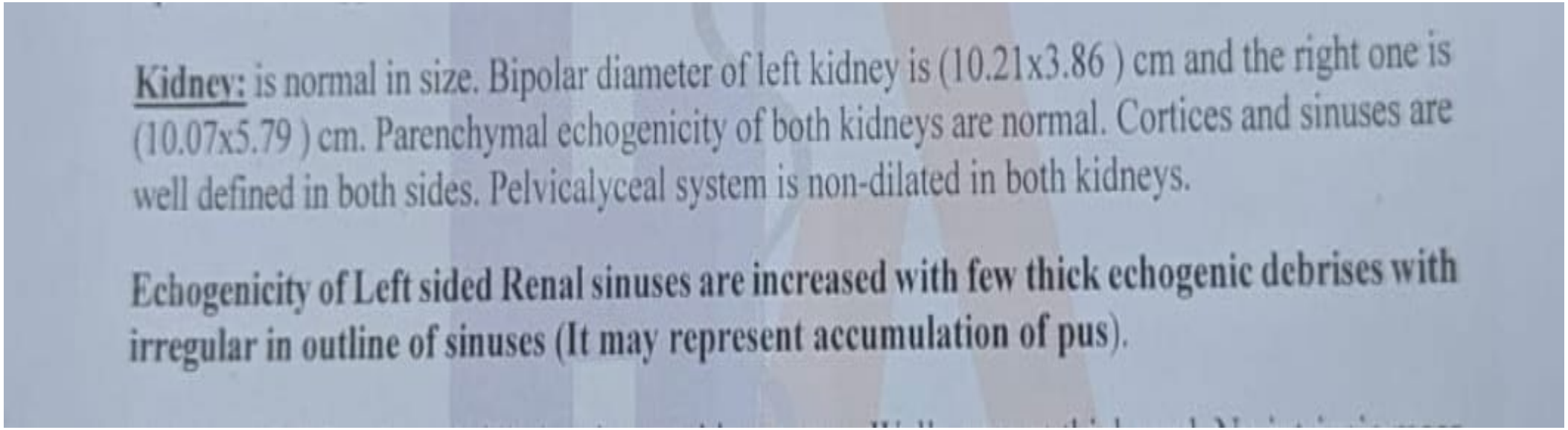
Findings:

No significant abnormality.



USG of whole abdomen

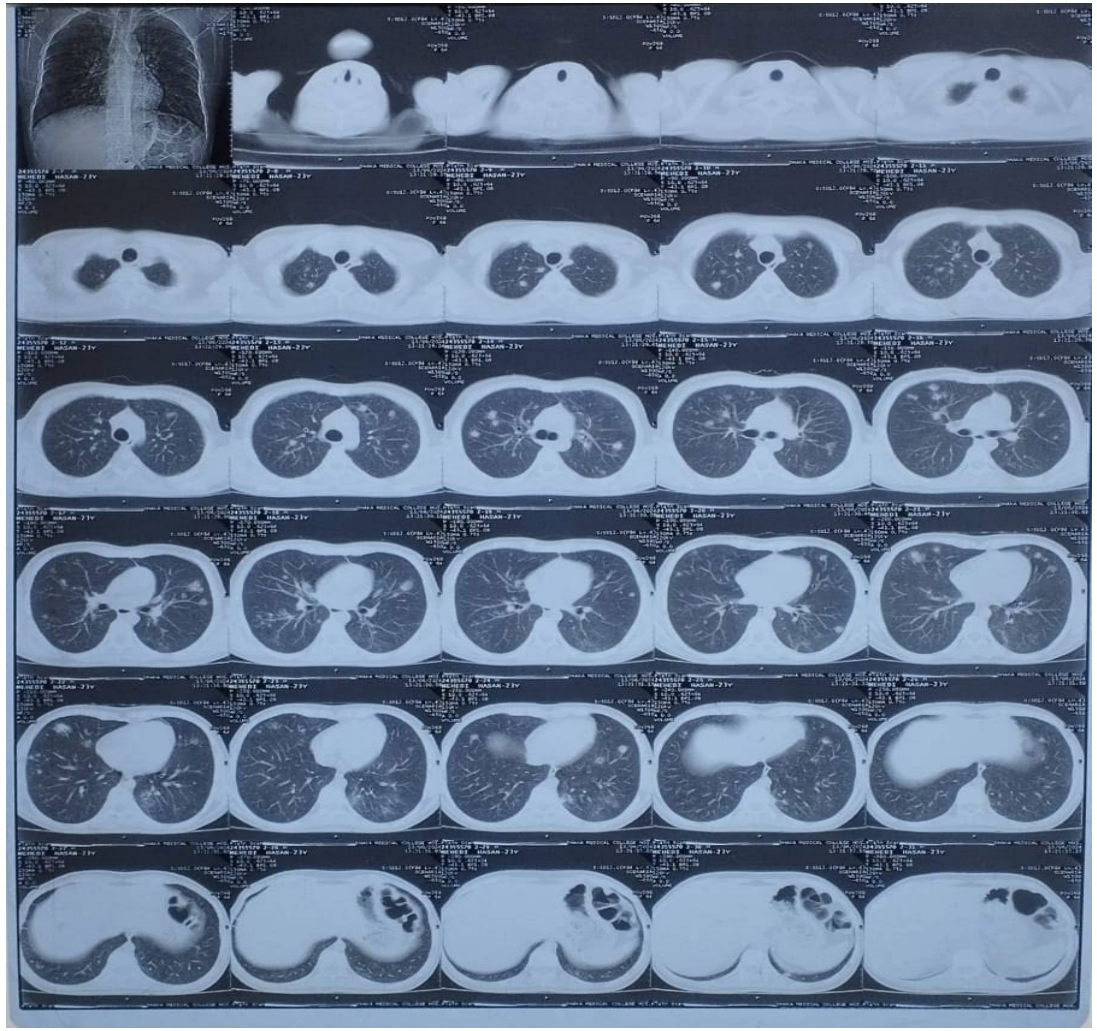
Echogenicity of left sided renal sinuses are increased with few thick echogenic debrises with irregular in outline of sinuses (it may represent accumulation of pus).

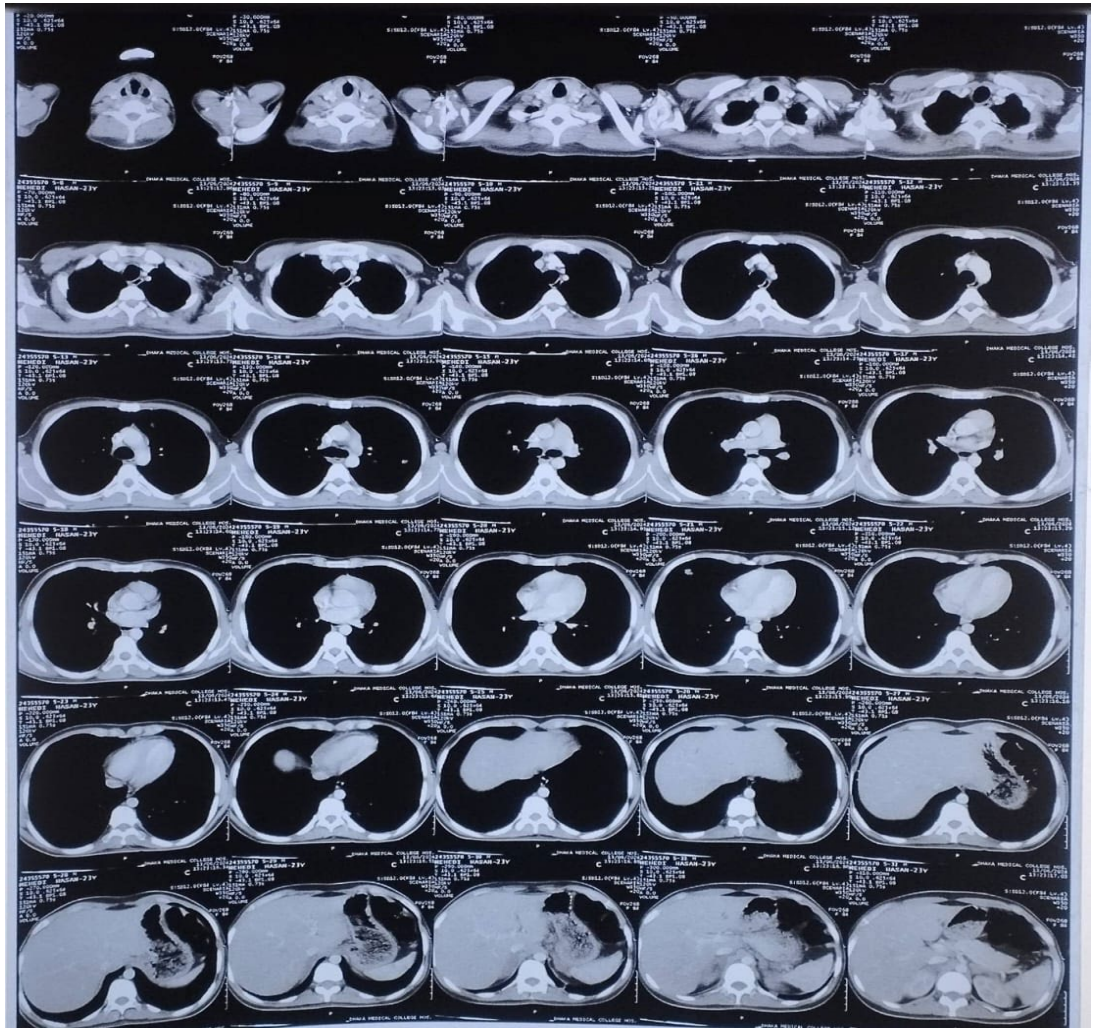


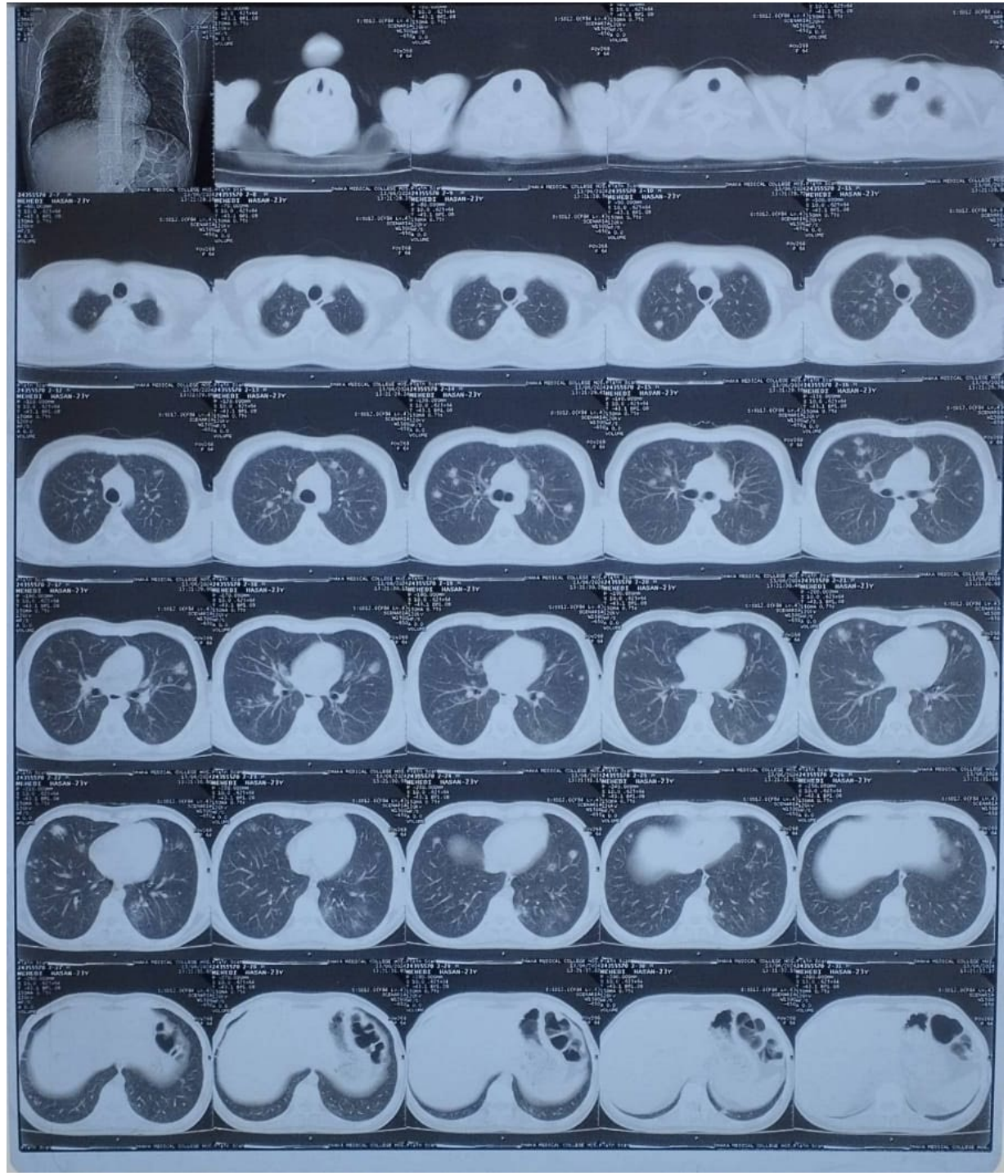
Colour doppler Echo

No abnormality detected

CT Scan of Chest



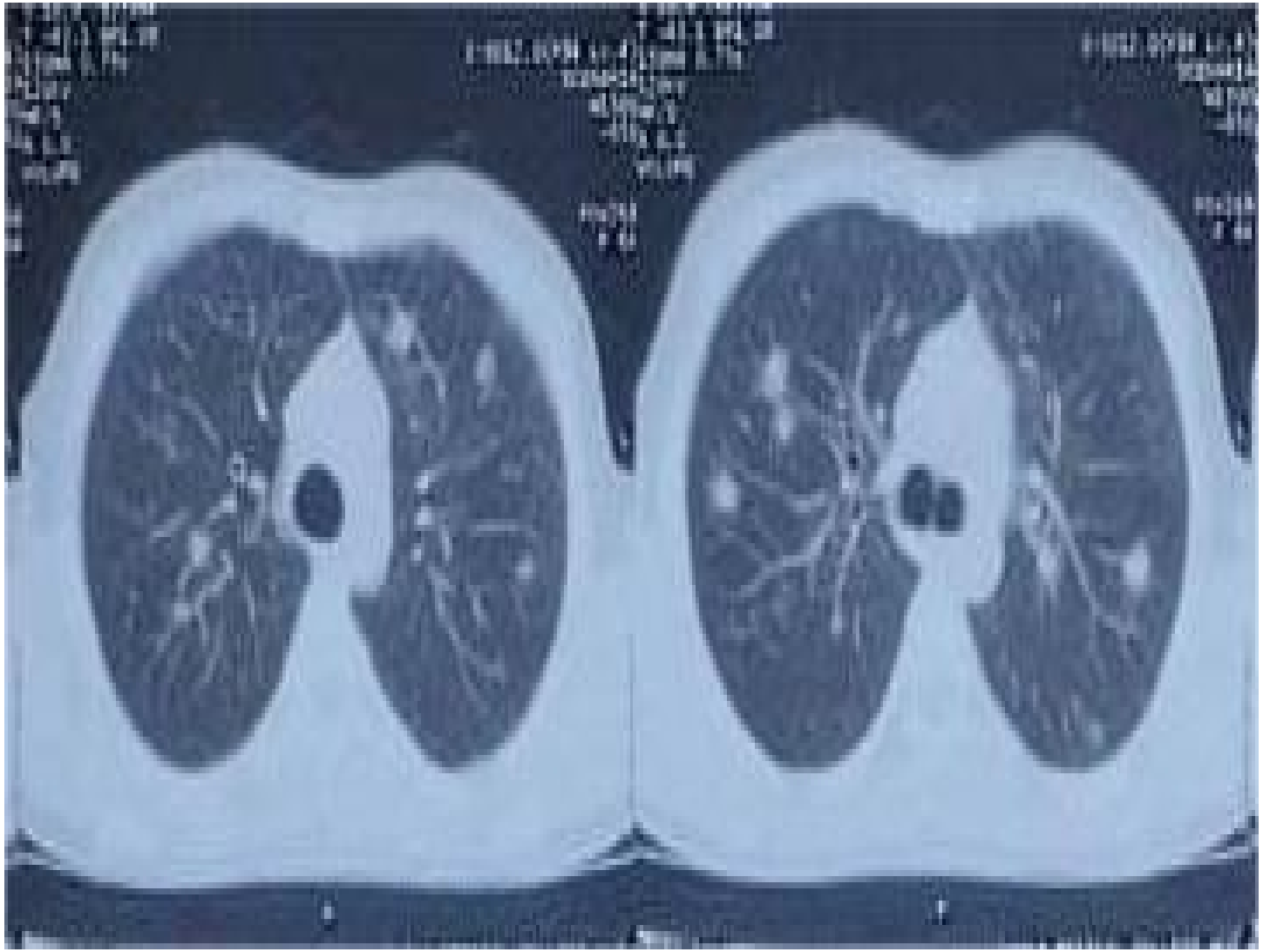




CT Scan of Chest...

Findings:

Bilateral peripheral pulmonary nodules with few cavitations with feeding vessel sign.



Auto antibodies

Investigation	Value
c ANCA	3.01 U/L (Negative)
p ANCA	4.10 U/L (Negative)

Tests for STD

Investigation	Value
VDRL	Non reactive
TPHA	Negative
Urethral smear for gram negative diplococci	Negative

HIV Test

Investigation	Value
Anti HIV- 1 & 2	Positive

Final Diagnosis?

Final Diagnosis

HIV Infection with
Renal abscess (Left)
with
Septic pulmonary emboli

Management

We started Inj. Meropenem, Inj. Amikacin, Cap. Doxycycline

↓

Diagnosed as HIV Infection & Sent to ART corner of BSMMU

↓

Started anti retroviral drugs combining Tab. Lamivudin, Dolutegravir & Tenofovir along with Co-trimoxazole

↓

Refer to Infectious Diseases Hospital, Mohakhali, Dhaka

Counselling

Patient was counselled about

- **Disease**
- **Transmission**
- **Prognosis**
- **Need for follow up**

Follow up

Follow up done after 6 months

- Fever, breathlessness improved

- Gained weight about 10 kg in last 6 months

We offered him a CT scan of chest (free of cost) but he told us that repeat CT scan of chest has been done and his doctor said that report is normal now.

Case report (1)

Case Reports in
Infectious Diseases

▸ Case Rep Infect Dis. 2018 Jan 24;2018:1460283. doi: 10.1155/2018/1460283

Septic Pulmonary Emboli and Renal Abscess Caused by *Staphylococcus aureus* in an HIV-Infected Patient

Isaí Medina-Piñón [1], Alan Ledif Reyes-Mondragón [2], Michel Fernando Martínez-Reséndez [1], Adrián Camacho-Ortiz [1,*]

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PMCID: PMC5833194 PMID: 29619261

Abstract

Case report (1)...

Case Report | Open Access |

Septic Pulmonary Emboli and Renal Abscess Caused by *Staphylococcus aureus* in an HIV-Infected Patient

Case report (2)

A contrast-enhanced thoracoabdominal computed tomography (CT) was performed, revealing multiple nodules with a bilateral and diffuse distribution, suggestive of septic emboli in the basal lung image (Figure 1). In the abdominal cavity, renal involvement was evident, showing a right-sided pyelonephritis with cortical lesions suggestive of hematogenous dissemination. Transesophageal cardiac echography demonstrated no evidence of endocarditis.

THANK YOU