MEET THE EXPERT
BSM 2013

A 32 years old male with fever, anorexia & weight loss

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Particulars of the Patient

Name	:	Mr. Akhterujjaman.
Age	:	32 years.
Sex	:	Male.
Religion	:	Islam.
Occupation	:	Govt. employee
Marital Status	:	Single.
Address:		
Present address	:	Rajakhali, Potuakhali.
Permanent add.	:	Rajakhali, Potuakhali.
Date of Admission	:	18.01.13
Date of Exam	:	18.01.13

The Presenting Complaints

1. Fever for last one & half months.

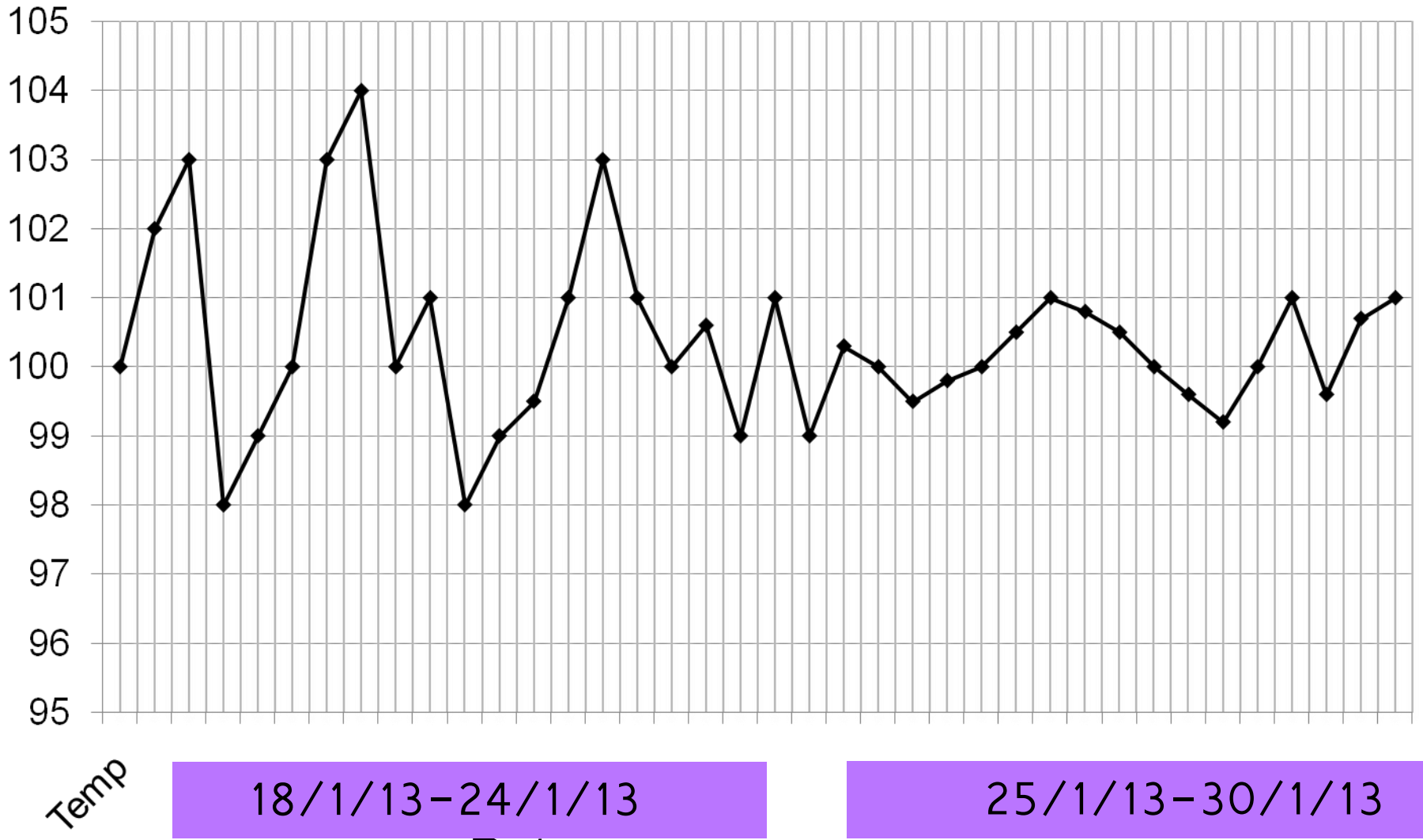
2. Loss of appetite, weight loss, generalized weakness & occasional vomiting for the same duration.

History Of Present Illness

According to the statement of the patient, he was reasonably well one & half months back. Then he gradually developed high grade fever which was intermittent in nature, associated with chills & rigor, subsided with sweating after taking antipyretic. The highest recorded temperature was 104^0F. For the last 7 days, the pattern of the fever has been changed & it became low grade & continued in nature, never raised above 101^0F. There was no diurnal variation or night sweats.

Initial Pattern

Later pattern



Temperature Chart

History Of Present Illness (contd..)

The fever was also associated with occasional vomiting which was non-projectile, not bile stained, small in amount, contained food particles, without any blood. He also complained of anorexia, generalized weakness & weight loss which is 5 kg within last one & half months. Then he visited a local doctor & was treated as a case of Enteric fever & then as a case of Malaria without any diagnostic evidence. He aborted the treatment & subsequently developed fever & vomiting.

H/O Present Illness (contd..)

Patient gave no history of yellow coloration of sclera or urine,no abdominal distension,chest pain,respiratory distress or coughing out of blood. He is non diabetic, non asthmatic & gave no H/O contact with TB pt. For these above mentioned complaints, he was admitted into DMCH on 18.01.13 for better management.

HISTORY OF PAST ILLNESS

Patient gave no H\O of any significant medical or surgical illness.

TREATMENT HISTORY

- Patient was treated with Ciprofloxacin, Cefixime, Naproxen, Tetracycline & antimalarial drugs.
- No history of

blood transfusion.

FAMILY HISTORY

His parents died in stroke. He has one brother & five sisters & they all are in good health.

PERSONAL HISTORY

- Patient is smoker (6 pack year). He is non alcoholic, no H/O drug addiction & no H/O exposure.

SOCIO ECONOMIC HISTORY

- The patient is from middle class socio economic background.

Travel History

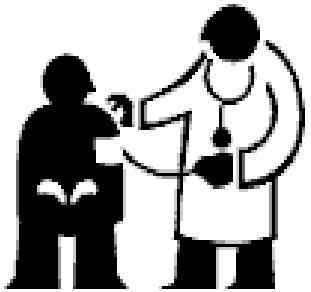
He has no history of travel to malaria or kala-azar endemic zone.

IMMUNIZATION HISTORY

- Patient received immunization as per EPI schedule.

Provisional diagnosis from History

Physical Examination

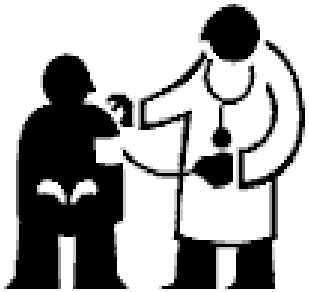


ON ADMISSION (18-01-13):

GENERAL EXAMINATION:

Appearance	: **Ill looking.**
Body built	: **Below average.**
Nutritional status	: **Below average.**
Decuibitus	: On choice.
Co operation	: Co-operative.
Anaemia	: **Mild.**
Jaundice	: Absent.
Cyanosis	: Absent.
Clubbing	: Absent.
Koilonychia	: Absent.
Leukonychia	: Absent.
Oedema	: Absent.
Skin	:Mild generelised darkening

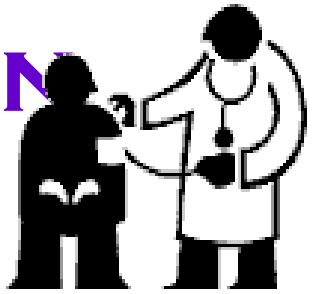
Physical Examination



GENERAL EXAMINATION (contd..):

Dehydration	: **Mild.**
Bony tenderness	: Absent.
Lymph node	: **Bilateral Inguinal lymphadenopathy is present , small, about 1cm in size, firm in consistency, discreet, non-tender, mobile.**
Thyroid gland	: Not enlarged.
Neck vein	: Not engorged.
Blood Pressure	: **80\40 mm of Hg (in lying) & 60\30 mm Hg (on standing).**
Temperature	: **101^0F.**
Respiratory rate	: 18 breaths/min.
Pulse	: **120 beats/min, regular.**

Systemic Examination



ON ADMISSION (18.01.13):

ALIMENTARY SYSTEM EXAMINATION:

Oral cavity : Normal

Abdomen :

Inspection:

Abdomen is normal in shape and flanks are not full. Umbilicus is centrally placed and inverted. Visible vein and peristalsis- absent

Palpation:

Superficial : Temperature is normal, no muscle guard, no tenderness.

Systemic Examination

ALIMENTARY SYSTEM EXAMINATION:

Deep palpation:

Liver:

Moderately enlarged in size, about 5cm from the rt. costal margin along the mid-clavicular line, surface is smooth, margin is regular, consistency is firm, non-tender, moves with respiration.

Upper border of liver dullness is on Rt. 4th intercostal space along Rt. Mid-clavicular line. Hepatic bruit is absent.

Spleen: not palpable.

Systemic Examination

Other systemic examinations revealed no abnormality.

Salient Features

Salient feature

Our patient Mr. Akhterujjaman, 32 years old, Govt. employee, hailing from Potuakhali, was admitted into DMCH on 19.01.2013 with the complaints of fever for last one & half months and loss of appetite, weight loss, generalized weakness & occasional vomiting for the same duration.According to statement of patient, he was reasonably well one & half months back. Then gradually he developed high grade fever which was intermittent in nature, was associated with chills & rigor, subsided with sweating after taking antipyretic.

Salient feature (cont…)

The highest recorded temperature was 104 degree F. For the last 7 days, the pattern of the fever has been changed & it has become low grade & continuous in nature, never raised above 101 degree F. There was no history of evening rise of temperature or night sweats. The fever was also associated with occasional vomiting which was non-projectile, not bile stained, small in amount, contained food particles, the vomitus did not contain blood. He also complained of anorexia, generalized weakness & weight loss which is 5kg within one & half months.

Salient feature (cont…)

Then he visited a local doctor & was treated as a case of Enteric fever & then as a case of Malaria without any diagnostic evidence. He aborted the treatment & subsequently developed fever & vomiting. Patient gave no history of yellow coloration of sclera or urine, no abdominal distension, chest pain, respiratory distress or hemoptysis.He is non diabetic, non asthmatic & gave no H\O contact with TB pt.For these complaints, he was admitted into DMCH for better management.

Salient feature(cont..)

ON Admission (18-01-13):

On **General examination, the** patient is

- **Ill-looking**
- **Body built is below average,**
- **Mildly anaemic**
- **Mild dehydration &**
- **Generalized darkening of the skin is present.**
- **Patient has Bilateral inguinal lymphadenopathy, small, about 1cm in size, firm in consistency, discreet, non-tender, mobile.**
- **Pulse is 120 beats/min,**
- **BP-80/40 mm of Hg in supine position & 60/30 mm Hg on standing.**
- **Temp-101^{0}F.**

Salient feature(cont..)

ALIMENTARY SYSTEM EXAMINATION:

Deep palpation:

Liver: Moderately enlarged in size, about 5cm from the Rt. Costal margin along the mid-clavicular line, surface is smooth, margin is regular, consistency is firm, non-tender, moves with respiration.

Upper border of liver dullness is on Rt. 4th intercostal space along Rt. Mid-clavicular line. Hepatic bruit is absent.

Spleen: not palpable**.**

Other systemic examinations revealed no abnormality.

Provisional diagnosis from History & physical Examination

Investigation

Investigation

CBC with ESR(18.01.2013)

Hb	: 12 gm/dl.
RBC count	: 4.71million/micro L.
Hct	: 36%
ESR	: 20 mm in 1st hour (Westergreen)
Total WBC	: 4,000/cu mm.
Differential count	: Neutrophil: 56%,Lymphocytes: 34%, Eosinophils:2%,Monocyte:3%
Platelet count	:15,000/cu mm.

Investigation

CBC with PBF (19.01.2013)

Hb% : 11.3 gm/dl.

RBC count : 4.54 million/micro L.

Hct : 31.8%

Total WBC : 3200/cu mm.

Differential count : Neutrophil : 56%,
Lymphocytes:33.4%,Momocyte:3%

Platelet count :14,000/cumm.

Investigation

Peripheral Blood film :

RBC : Microcytic & hypochromic.

WBC : Mature with above count & distribution.

Platelet : Decreased in count but normal morphology.

Comment : Thrombocytopenia with Microcytic & hypochromic blood picture.

Investigation

On 18-01-13:

Febrile Antigen:

TO, TH, AH, AO, BH, BO : 1:80.

Proteus: OXK, OX2, OX19 : 1:80.

Brucella: BA, BM : 1:80.

Investigation

On 18-01-13:

Urine R/E :Albumin: +

Pus cell : 3-6/HPF

RBC : 0-3/ HPF

Blood urea : 54 mg/dl

Serum creatinine : 2.20 mg/dl

Serum electrolyte : Na : 125 mmol/L

K :3.80 mmol/L

Cl : 98 mmol/ L

Investigations(cont..)

On 24-01-13:

RBS :6.4 mmol\L.

Serum creatinine : 1.8 mg/dl

Serum electrolyte : Na : 136 mmol/L

K : 2.7 mmol/L

Cl : 104 mmol/ L

Blood culture : No growth.

Investigation

On 20.01.13 (Nuclear Medicine):

USG of whole abdomen :

Bilateral slightly echogenic kidneys.

Right sided trace pleural effusion.

On 20-01-13 (BIRDEM) :

S. ACTH :29.80pg/ml (Normal: 8.3-57.8 pg/ml)

Basal Cortisol : 665 nmol/L (Basal range:116-1065nmol/L)

Investigation

Serum Hormone level:

Rapid ACTH Stimulation test:

Cortisol 30min: 1649.90nmol/L.

Cortisol 60min: 1859.90 nmol/L.

Investigation

ON 24-01-13:

Bonemarrow study :

Cellularity: Hypocellular marrow with Normal M:E ratio.

Erythropoiesis: Depressed but normoblastic.

Granulopoiesis: Depressed but shows mild left shift maturation with arrest at myelocyte stage.

Megakaryocytes: Slightly reduced in number with apparently normal morphology.

Lymphocytes: Increased in number & mature looking.

Plasma cells: Increased in number (8%).

Investigation

Histocytes: Unremarkable.

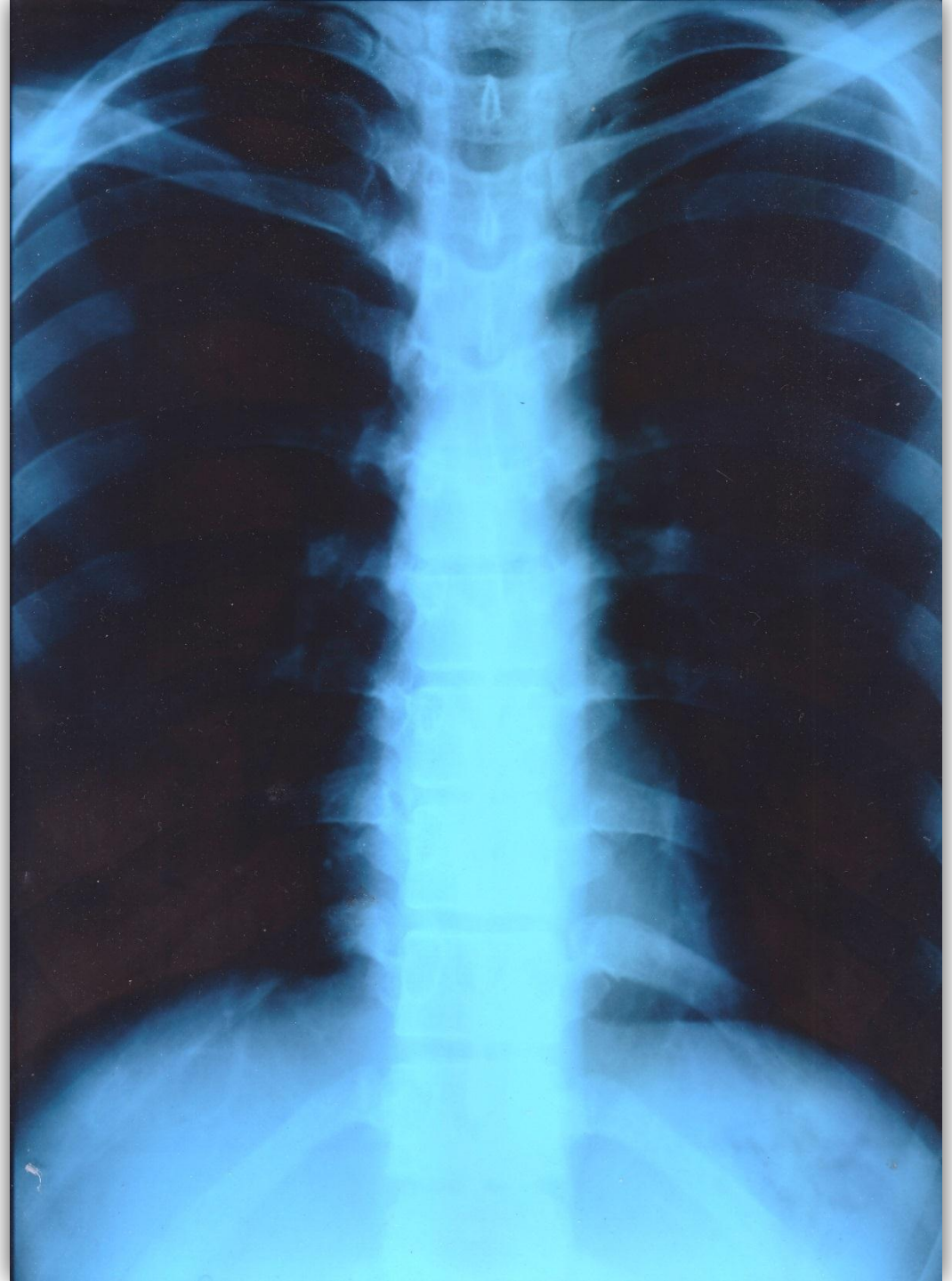
Parasites\ Ectopic cells: Not found.

Comment: Hypocellular marrow with maturation arrest of granulopoietic series at myelocyte stage.

Investigation

ON 24-01-13:

Chest X ray (P\A) view: Normal.



Investigation

ON 26-01-13:

Liver function test:

Serum Bilirubin :0.86 mg\dl.

Serum Albumin :2.62 gm\dl.

SGPT :66 U\L.

Prothombin Time : pt: 28sec, control: 12sec, INR: 1.05.

HBs Ag : Negative.

Anti HCV : Negative.

HIV : Negative.

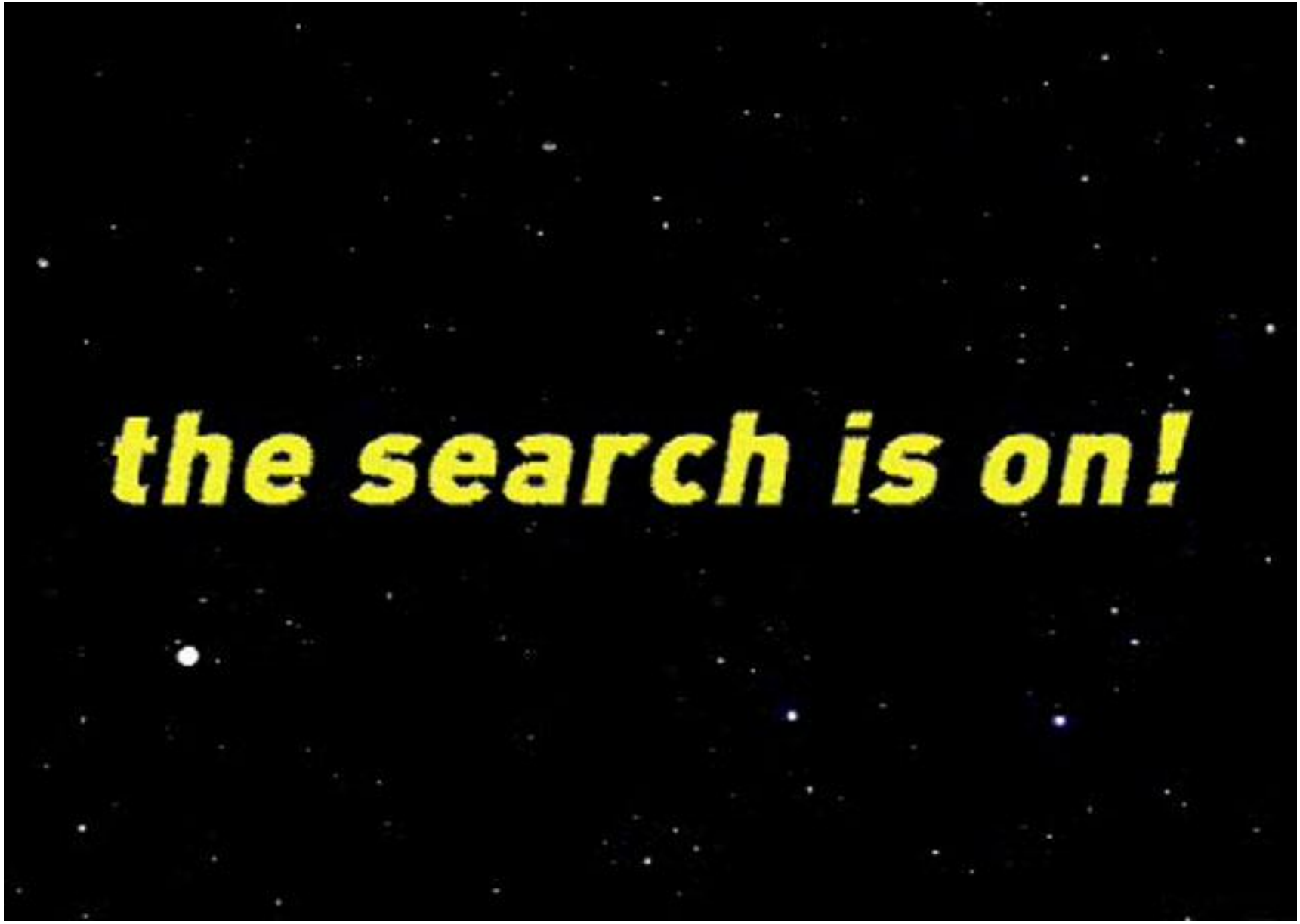
Investigation

On 26-01-13:

- **ECG:** Normal.
- **Sputum for AFB**: Negative.
- **MT Test**: Negative.

On 26-01-13:

- **ICT for Kala-azar (rK- 39 test):** Negative**.**
- **ICT for Malaria:** Negative.
- **ANA test:** Negative.


the search is on!

FOLLOW-UP EXAMINATION

FOLLOW-UP EXAMINATION

ON 28-01-13 revealed:

General Examination: Bilateral cervical lymphadenopathy (Anterior cervical chain) is present, small in size, 3 in number, largest one is about 2cm in size, firm in consistency, non-tender, mobile, discreet, no discharging sinus is present.

Abdominal Examination:

Spleen: Just palpable.

Investigation

CBC with PBF (28.01.2013)

- Hb% : 9.1 gm/dl.
- RBC count : 3.64 million/micro L.
- Hct : 27.4%
- Total WBC count : 3640/cu mm.
- Differential count : Neutrophil : 55.7%
  Lymphocytes : 33%,
  Monocyte:4%
- Platelet count :59,000/cumm.

Investigation

Peripheral Blood film :

RBC : Normocytic & normochromic.

WBC : Mature with above count & distribution.

Platelet : Decreased.

Comment : Normocytic Normochromic Anaemia with thrombocytopenia.

Investigation

0n 29.01.13

Serum Creatinine : 1.8 mg/dl.

Serum Electrolyte : Na : 129mmol/L

K : 4.7mmol/L

Cl : 96mmol/ L

Investigation

0n 28.01.13 (DMCH):

USG of whole abdomen:

Liver- mildly enlarged in size. Parenchymal echotexture is uniform.

Spleen: mildly enlarged in size, mainly in transeverse diameter(5.3cm).

Enlarged lymph nodes are noted around splenic hilum (1.2cm)

Adrenal glands: both adrenal glands are enlarged in size, more in left with diffusely heterogenous parenchymal echotexture (6.3x3.1cm).

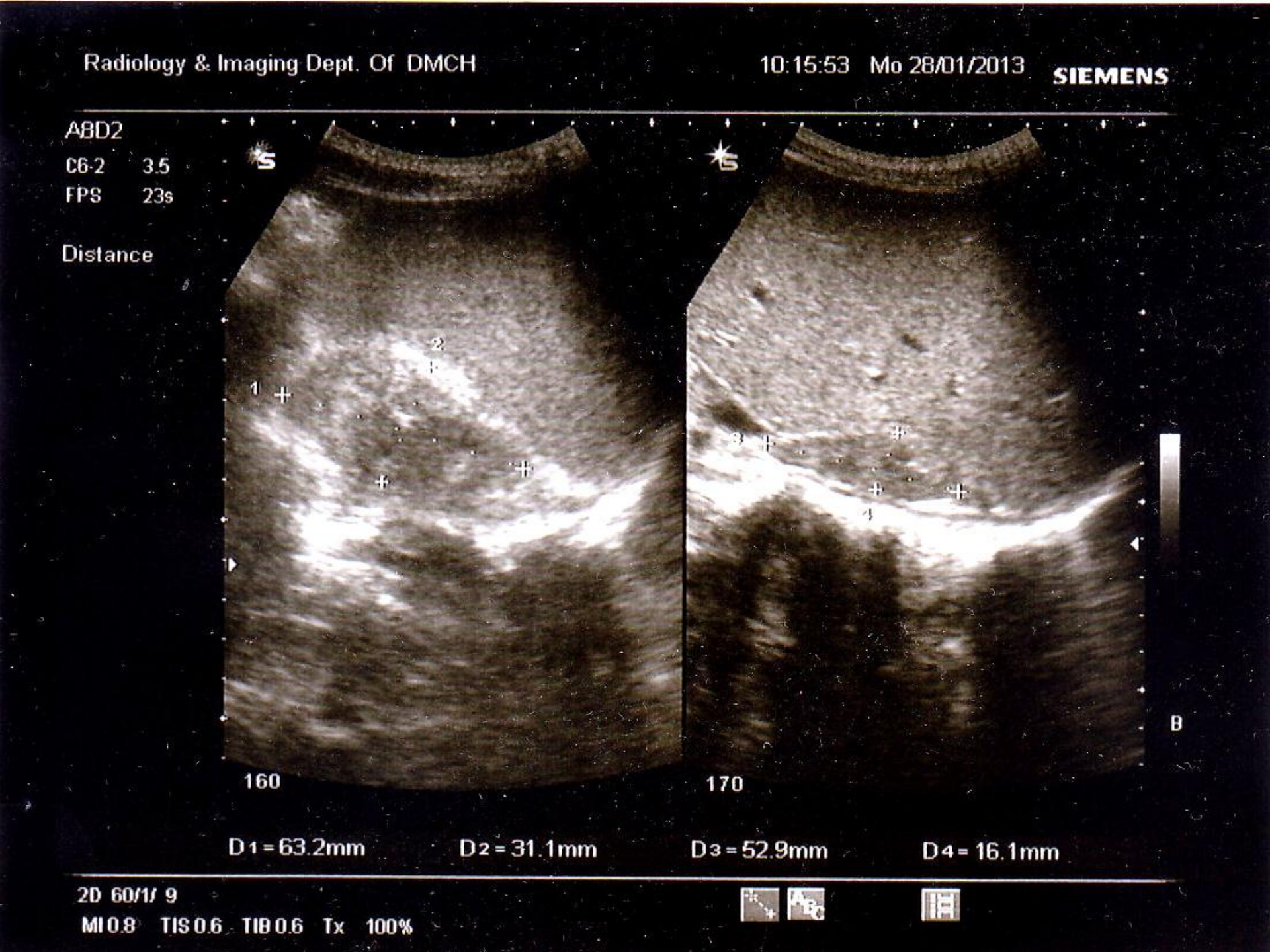
Investigation

Gallbladder, biliary channels & pancreas are normal.

Comment: Mild hepatosplenomegaly.

Enlarged pre-splenic lymphnodes.

Suggestive of Bilateral enlarged adrenal glands.


Radiology & Imaging Dept. Of DMCH
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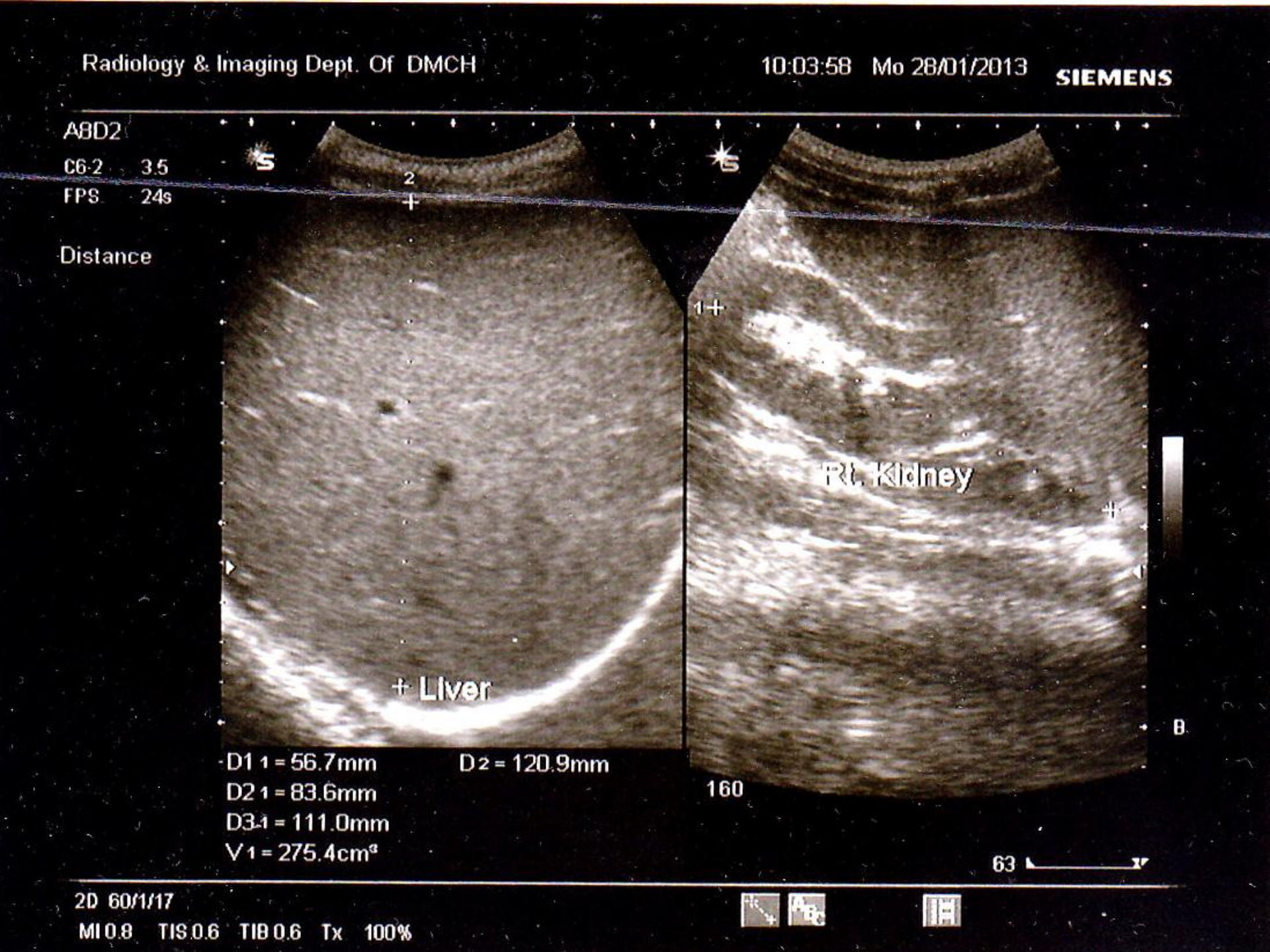
SIEMENS
ABD2
C6-2 3.5
FPS 23s
Distance
160
170
D1 = 63.2mm
D2 = 31.1mm
D3 = 52.9mm
D4 = 16.1mm
2D 60/1/ 9
MI 0.8 TIS 0.6 TIB 0.6 Tx 100%


Radiology & Imaging Dept. Of DMCH
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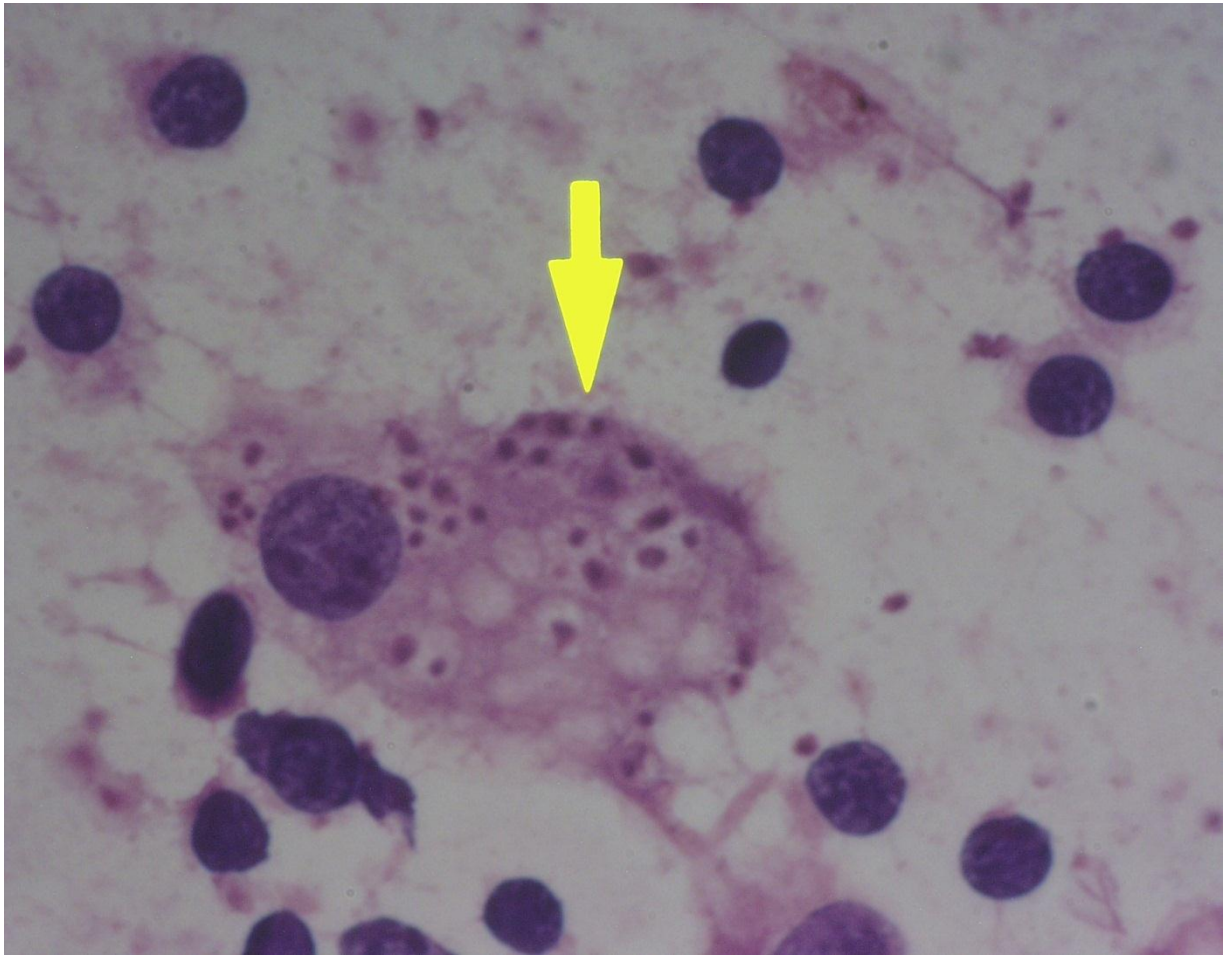
SIEMENS
A8D2
C6-2 3.5
FPS 24s
Distance
Liver
Rt. Kidney
D1 1 = 56.7mm
D2 1 = 83.6mm
D3 1 = 111.0mm
V 1 = 275.4cm³
D2 = 120.9mm
160
63
B
2D 60/1/17
MI 0.8 TIS 0.6 TIB 0.6 Tx 100%

FNAC from Right cervical lymph node

Microscopic examination: smears reveal small lymphocytes & histiocytes. These also reveal many Leishman donovan bodies.

Diagnosis: Visceral Leishmaniasis.



Final Diagnosis

Visceral Leishmaniasis

Can rk39 test be negative in visceral leishmeniasis??

"rK39 strip formats from different brands or from different generations of the same brand are likely to show variations in diagnostic performance."

Immunochromatographic rK39 strip test in the serodiagnosis of visceral leishmaniasis in Tunisia:

F. Saghrounia, S. Gaïed-Meksia, A. Fathallaha,b, F. Amric,H. Acha,I. Guizanib, M. Ben Saïda

Thank you