In the name of Allah
The most gracious, The most merciful

LONG CASES IN MEDICINE

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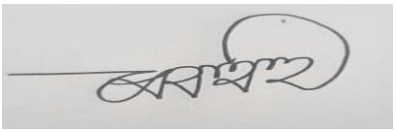
FOREWORD

It's a great pleasure and honor for me to write a few words about 'Long Cases in Medicine'. This book is an excellent made-easy book, written by Dr. Md. Mehedi Hasan Lemon. I am sure that reading the lucid description in this book, undergraduate students will be able to prepare themselves in a systematic way for the final examination as well as for real life. I think after reading this book thoroughly, the students will be able to take the history from any type of patient along with proper and systematic examination to reach a diagnosis and provide proper management. In this respect, I strongly appreciate and feel that this book will really be a good guide, written in a concise and comprehensive manner, and this will help all the students to make a strong and basic foundation on which future pillar of knowledge can be made to stand erect. I appreciate and praise the whole-hearted effort and honest work, sincerity, endeavor, enthusiasm and patience in bringing out this book for the learners of Medicine.



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PROFORMA OF A LONG CASE

Particulars of the patient:

1. **Name:**
   - ✓ For identification of the patient
   - ✓ Patient usually likes to be asked by his/her name.
   - ✓ Paient feels assured when you know his/her name.
2. **Age:** Is important as some diseases are more common in at specific ages. e.**g.**

   In children:
   - ✓ Pneumonia
   - ✓ Viral hepatitis
   - ✓ Acute appendicitis
   - ✓ Round worm intestinal obstruction
   - ✓ Ranula (Mucous containing cyst in floor of the mouth)
   - ✓ Papillary carcinoma

   In middle age:
   - ✓ Carcinoma of stomach
   - ✓ Acute and chronic cholecystitis
   - ✓ Peptic ulcer
   - ✓ Acute panceatitis
   - ✓ Perforated peptic ulcer
   - ✓ Vericose ulcer
   - ✓ Venous ulcer
   - ✓ Renal and ureteric calculi
   - ✓ Ca rectum

   In older age:
   - ✓ Pneumonia
   - ✓ Parkinson's disease
   - ✓ Stroke
   - ✓ Gastric and duodenal ulcer
   - ✓ Abdominal aortic aneurysm
   - ✓ Diverticular disease
   - ✓ Ca colon
   - ✓ Hernia
   - ✓ Acute parotitis
   - ✓ Carcinoma of parotid gland
   - ✓ Carcinoma of tongue

3. **Sex:**

   More in male:
   - ✓ Ca stomach
   - ✓ PUD
   - ✓ Basal cell carcinoma
   - ✓ Renal and ureteric calculi
   - ✓ Carcinoma bladder
   - ✓ BEP
   - ✓ Ca prostate

CHRONIC LIVER DISEASE (CLD)

Particulars of the patient:

Name: Mr. Ershad Sikder

Age: 42 years

Sex: Male

Marital status: Married

Occupation: Truck driver

Address: Mymensingh Sadar, Mymensingh

Date of admission: 26.09.2019

Date of examination: 26.09.2019

Presenting complaints:

1. Body swelling for 6 months
2. Yellow colouration of urine and eye for 3 months

History of present illness:

According to statement of the patient, he was reasonably well 6 months back. Then he has gradually developed swelling of whole body which was first appeared in abdomen and spread all over the body. His amount and colour of urine is normal, no H/O sore throat or skin infection (To exclude GN), no fever, night sweats, cough (To exclude TB and lymphoma), weight loss and alteration of bowel habit (To exclude intrabdominal malignancy), no chest pain, breathlessness on lying flat (To exclude CCF) but feels heaviness and discomfort in abdomen. He also noticed yellow colouration of urine and eye for last 3 months which is non-progressive, not associated with anorexia, nausea, vomiting, joint pain (To exclude viral hepatitis), no itching, pale colouration of stool (To exclude obstructive jaundice). He has no H/O blood or blood products transfusion, IV drug abuse, surgery, travelling abroad but has multiple extramarital sexual exposure and he used to shaving in salon and were unaware of using new disposable blade every time (To identify the cause). He has no H/O vomiting out of blood, passage of black tarry stool, loss of consciousness but for last few months he is losing his body and pubic hair, reduced frequency of shaving and having reduced sexual urge (Look for complications). With those above complains, he admitted to this hospital for further evaluation and

management. He also gave history aspiration of fluid from his abdomen twice after admission and color of the fluid was clear.

H/O past illness: He never suffered from jaundice. He has no history tuberculosis, DM, heart or renal disease.

Family history: No other member of his family has suffered from TB. His parents and siblings are in good health.

Personal history: He is non-smoker, non-alcoholic

Socioeconomic history: He comes from lower middle class family. She lives in tin shaded house, drinks arsenic free tube well water and uses sanitary latrine.

Drug history: He took several medications but couldn't mention the names of those drugs.

Immunization history: He is not immunized against hepatitis B.

Menstrual history: If female

LMP: 03.09.2009

Menstrual cycle: Regular

Duration: 5-6 days

Flow: Average

General examination:

Appearance: Hepatic facies (Muddy complexion**,** Shunken eyes**,** Prominent Zygoma**,** Pinched nose, Thin ala nasi)

Body built: Average

Co-Operation: Co-Operative

Decubitus: On choice

Nutritional status: Average

Anaemia: Absent

Jaundice: Mild

Cyanosis: Absent

Clubbing: Absent

Koilonychia: Absent

Leuconychia: Present

Dupuytren's contracture: Absent

Palmar erythema: Absent

Flapping tremor: Absent

Spider nevi: Present on upper part of chest and back

Gynaecomastia: Present

Oedema: + + + +

Dehydration: Absent

Skin condition: There is bandage on right iliac fossa.

Body hair distribution: Loss of axillary & pubic hair

Pulse: 96/min

BP: 100/60 mm of Hg, no postural drop

RR: 18/ min

Temperature: 99^0 F

JVP: Not raised

Pigmentation: Absent

Bony tenderness: Absent

Thyroid gland: Not enlarged

Lymph node: Not palpable

Bed side urine examination: No albumin, no sugar.

Systemic examination:

Gastrointestinal system:

Mouth and oral cavity: Normal

Abdomen Proper:

Inspection:

Shape of the abdomen: Distended

Umbilicus: Central in position, everted, transversely slited.

Flanks are full

Visible engorged vein with normal direction of flow (Away from umbilicus)

No visible pulsation, peristalsis, pigmentation or striae

Palpation:

Superficial palpation:

Temperature: Not raised

Tenderness: Absent

No hyperaesthesia, muscle guard or lump

Deep palpation:

Liver: Not palpable

Spleen: Palpable, 5 cm from left costal margin along the anterior axillary line towards the umbilicus, firm in consistency, non tender.

Urinary bladder: Not palpable

Fluid thrill: Present

Hernial orifice: Intact

Testes: Both testes are small and atrophied.

Percussion:

Shifting dullness: Present

Auscultation:

Bowel sound: Present

Renal bruit: Absent

Cardiovascular system:

Pulse: 96/min, regular, normal in volume and character & condition of the vessel wall. No radio-radial or radio femoral delay.

JVP: Not raised

Blood pressure: 100/60 mm of Hg, no postural drop

Precordium:

Inspection:

Size and shape of the chest: Bilaterally elliptical and symmetrical

There is no visible cardiac impulse, scar marks, visible engorged vein, epigastric or suprasternal pulsation

Palpation:

Apex beat: Left 5^{th} intercostal space, 9 cm from midline, normal in character

Thrill: Absent

Left parasternal heave: Absent

Palpable P2: Absent

Epigastric pulsation: Absent

Auscultation:

1^{st} and 2^{nd} heart sound: Audible in all areas

There is no murmur or no added sound

Neurological examination:

Higher psychic function including speech: Normal

Fundoscopy: Normal

Cranial nerves: Intact

Motor system examination: Motor functions are normal in all four limbs

Sensory examination: All modalities of sensations are intact in both upper and lower limbs

Cerebellar signs: Intact

Signs of meningeal irritation: Absent

Respiratory system: Normal

Salient feature:

Mr. Ershad Shikder, 42 years old, normotensive, non diabetic, non-smoker, non-alcoholic, muslim, truck driver hailing from Mymensingh Sadar, Mymensigh, presented with body swelling for 6 months and yellow colouration of urine and eye for 3 months. He gradually developed swelling of whole body which was first appeared in abdomen and spread all over the body. His amount and colour of urine is normal, no H/O sore throat or skin infection, no fever, night sweats, cough, weight loss and alteration of bowel habit, no chest pain, orthopnoea but feels heaviness and discomfort in abdomen. He also noticed yellow colouration of urine and eye for last 3 months which is non-progressive, not associated with anorexia, nausea, vomiting, joint pain, no itching, pale colouration of stool. He has no H/O blood or blood products transfusion, IV drug abuse, surgery, travelling abroad but has multiple extramarital sexual exposure and he used to shaving in salon and were unaware of using new disposable blade every time. He has no H/O hematemesis, melena, loss of consciousness but for last few months he is losing his body and pubic hair, reduced frequency of shaving and having reduced libido. He also gave parecentesis twice after admission and fluid was serous. He is not immunized against hepatitis B. Patient is ill looking but fully conscious and oriented, hepatic facies, mild jaundice, leuconychia, spider nevi, gynaecomastia, oedema, bandage over right iliac fossa present, non anaemic, pulse 96/min, BP 100/60 mm of Hg, no postural drop, respiratory rate 18/min , temperature 99^0F, lymph nodes not palpable, no clubbing in general examination. On alimentary system examination, caput medusae present, with ascites is

evidenced by fluid thrill and shifting dullness, spleenomegaly present. Both testes are small and atrophied. Other system examinations reveal no abnormality.

Provisional diagnosis: Decompensated chronic liver disease with portal hypertension

Differential diagnoses:

1. CCF
2. NS

***If patient has ascites only:** Decompensated chronic liver disease (D/D: 1. Intrabdominal TB 2. Intra abdominal malignancy with peritoneal metastasis)

***If this patient has fever and/or abdominal pain:** Decompensated chronic liver disease with SBP

***If this patient has ascites with haematemesis and melena:** Decompensated chronic liver disease with portal hyertension with ruptured oesophageal varices

Investigations:

1. **CBC**
2. **Liver function test:** SGPT, S.Bilirubin, PT,serum albumin, AG ratio
3. **Viral marker :** HBs Ag, Anti-HBc Ig G, Anti-HCV
4. USG of HBS and pancreases
5. Ascitic fluid study
6. Endoscopy of upper GIT
7. Urine RME: No proteinuria, no RBC
8. Serum electrolytes
9. CXR-PA
10. ECG
11. RBS

Treatment:

1. **Bed rest**
2. **Diet:**
    - ✓ Salt restriction (No added salt in diet/ 100mmol/24 hours)
    - ✓ No fluid restriction until Na level is < 125mmol /l
3. **Diuretic:** Combination spirolactone and frusemide
4. **Paracentesis**
5. Syrup. Lactulose
6. Tab. Propanolol: For portal HTN
7. Treatment of underlying cause e.g. anti viral
8. Specific R_x : Liver transplantation

CROSS QUESTIONS

What is your provisional diagnosis?

Right sided pleural effusion, most probably due to tuberculosis.

Why?

<u>Points in favor:</u>

A. History:

1. Long history
2. Low grade fever with evening rise of temperature and night sweats
3. Weight loss
4. Cough with sputum production
5. Straw coloured pleural fluid according to patient's statement
6. Contact with TB patient: If present

B. On examination: Features of pleural effusion present

1. Trachea is shifted to left
2. Chest expansibility reduced on right side
3. Vocal fremitus reduced
1. Dull percussion note
2. Diminished/absent breath sound and vocal resonance

What is your DD?

Right sided pleural effusion due to bronchial carcinoma

Why? Why not?

Points in favor:

1. Old age
2. Weight loss

Points against:

1. Presence of fever
2. No lympadenopathy
3. No clubbing

4. No Hoarsness of voice, feature of SVO (Superior Vena Cava Obstruction), Hornor's Syndrome , pancoat's tumour
5. Straw coloured pleural fluid

Why do you say that pleural effusion?

A. History: Heaviness of chest followed by dyspnoea
B. On examination: Features of pleural effusion present
    1. Trachea is shifted to left
    2. Chest expansibility reduced on right side
    3. Vocal fremitus reduced
    4. Dull percussion note
    5. Diminished/absent breath sound and vocal resonance

Why do you say that is due to TB?

1. Long history
2. Low grade fever with evening rise of temperature and night sweats
3. Weight loss
4. Cough with sputum production for long
5. Straw coloured pleural fluid according to patient's statement
6. Contact with TB patient: If present

Why not Parapneumonic effusion?

1. Duration: Long (Short duration in parapneumonic effusion)
2. Low grade fever (High grade fever in parapneumonic effusion)
3. Absence of chest pain **(**Parapneumonic effusion is usually preceded by pleuritic chest pain))
4. Patient is stable (Toxic in parapneumonic effusion)

What are the common causes of dullness in lower chest?

1. Pleural effusion
2. Thickened pleura
3. Consolidation
4. Collapse
5. Fibrosis
6. Mass lesion

LEUKAEMIAS

Definition:

Leukaemias are malignant disorders of the haematopoietic stem cell compartment, characteristically associated with increased numbers of white cells in the bone marrow and/or peripheral blood.

[Davidson's-23rd- 954]

Risk factors for leukaemia:

A. **Ionising radiation:**
    1. After atomic bombing of Japanese cities (myeloid leukaemia)
    2. Radiotherapy
    3. Diagnostic X-rays of the fetus in pregnancy
B. **Cytotoxic drugs:**
    1. Especially alkylating agents (myeloid leukaemia, usually after a latent period of several years)
    2. Industrial exposure to benzene
C. **Retroviruses:** Adult T-cell leukaemia/lymphoma (ATLL) caused by human T-cell lymphotropic virus 1(HTLV-1)
D. **Genetic:**
    1. Identical twin of patients with leukaemia
    2. Down's syndrome and certain other genetic disorders
E. Immune deficiency states (e.g. hypogammaglobulinaemia)

[Davidson's-23rd- 955]

Terminology and classification: Leukaemias are traditionally classified into four main groups:

1. Acute lymphoblastic leukaemia (ALL) ***[Common in children]***
2. Acute myeloid leukaemia (AML) ***[Common in adults]***
3. Chronic lymphocytic leukaemia (CLL)
4. Chronic myeloid leukaemia (CML)

[Davidson's-23rd- 955]

<u>For understanding purpose:</u>

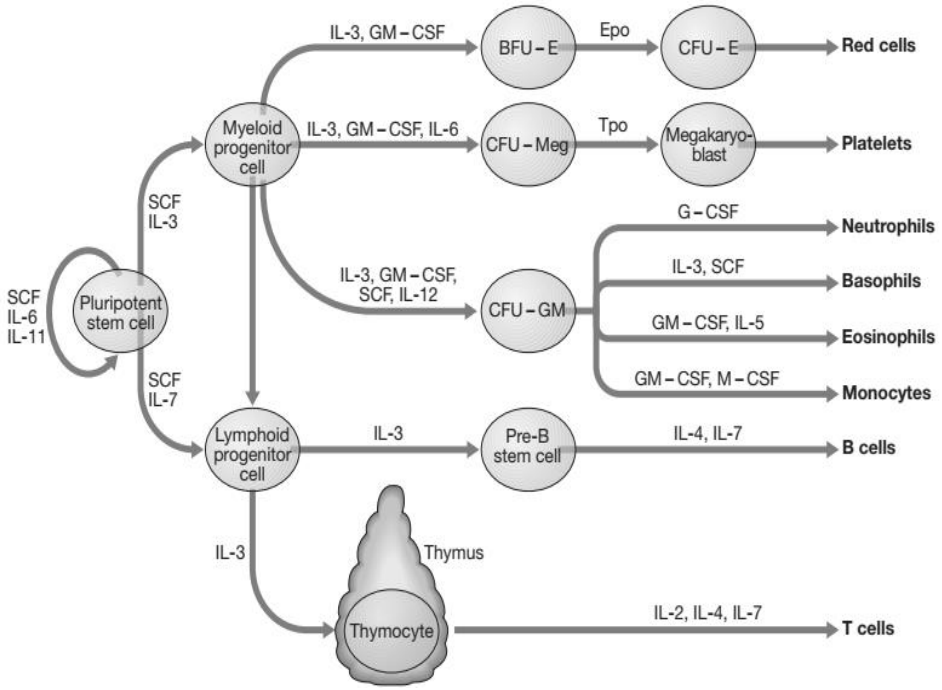
Acute leukaemia:

- ✓ There is a failure of cell maturation in acute leukaemia.
- ✓ Proliferation of cells that do not mature leads to an accumulation of primitive cells that take up more and more marrow space at the expense of the normal haematopoietic elements.
- ✓ Eventually, this proliferation spills into the blood.

Chronic leukaemia: Malignant clone is able to differentiate, resulting in an accumulation of more mature cells.

- Lymphocytic and lymphoblastic cells are those derived from the lymphoid stem cell (B cells and T cells).
- Myeloid refers to the other lineages: that is, precursors of red cells, granulocytes, monocytes and platelets

[Davidson's-23rd- 955]



[Davidson's-23rd- 915]

ACUTE LEUKAEMIA

<u>Management of acute leukaemia:</u>

History:

1. Males: Female= 3:2
2. ALL: Peak of incidence in 1–5 years.
3. AML: Common in adults

Symptoms: Acute leukaemia, regardless of subtype, present with symptoms reflecting inadequate haematopoiesis secondary to leukaemic cells infiltration of the bone marrow:

1. Shortness of breath on effort, excessive tiredness, weakness: Due to anaemia
2. Recurrent infections: Due to leucopenia
3. Bleeding and bruising: Due to thrombocytopenia. Particularly acute promyelocytic leukaemia
4. Bone pain: Due to marrow infiltration

Signs: Examination may be unremarkable, but features include:

1. Pallor
2. Fever: Due to infection, not the disease itself
3. Petechiae, purpura, bruises, fundal haemorrhage: Particularly acute promyelocytic leukaemia
4. Lymphadenopathy, hepatosplenomegaly: More notable in lymphoblastic leukaemia
5. Violaceous skin lesions: In acute myelomonocytic leukaemia
6. Testicular enlargement: In ALL
7. Cranial nerve palsies: Occasionally found in ALL

Investigations:

1. **CBC with PBF:**
   - ✓ Anaemia with a normal or raised MCV
   - ✓ Leucocyte count: 1×109/L to 500×109/L or more. In the majority of patients below 100 × 109/L.
   - ✓ Severe thrombocytopenia: Usual but not invariable.
   - ✓ Blast cells: Seen. But may be infrequent or absent.
2. **Bone marrow examination:**
   - ✓ Hypercellular (Normal elements replaced by leukaemic blast cells)
   - ✓ > 20% is blast cells
   - ✓ Auer rods in the cytoplasm of blast cells: Indicates AML
3. Immunophenotyping
4. Chromosome and molecular analysis

[Davidson's-23rd- 955-56]

Treatment:

A. Supportive therapy:

1. Control of infection: By parenteral broad spectrum antibiotic e.g. Gentamicin + Piperacillin/tazobectam or merepenem

2. Correction of anaemia: By red cell concentrate transfusion
3. Control of thrombocytopenic bleeding: By platelet transfusions
4. Central venous catheter: If possible, to facilitate access to the circulation for delivery of chemotherapy, fluids, blood products and other supportive drugs
5. Tumour lysis risk assessment and prevention: Fluids with allopurinol or rasburicase
6. Explaination to the patient and informed consent
7. Consideration of entry into clinical trial

B. **Specific therapy:** 3 phases:
   1. **Remission induction:**
      - ✓ A fraction of the tumour is destroyed by combination chemotherapy.
      - ✓ Patient goes through a period of severe bone marrow hypoplasia lasting 3–4 weeks.
      - ✓ Aim: Blood counts return to normal and marrow blast count is < 5%.
   2. **Remission consolidation:** If remission has been achieved, residual disease is attacked by therapy during the consolidation phase.
   3. **Remission maintenance:** If the patient is still in remission after the consolidation phase for ALL, a period of maintenance therapy is given.
   8. **Haematopoietic stem cell transplantation**

[Davidson's-23rd- 956-858+Kumar and Clerk-7th-468]