

محاضرات
الطب الباطني – جراحي
الصف الثاني
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Pneumonia

It is an inflammation of the lung tissue and it is classified into 2 groups:

A – **specific pneumonia** which usually occurs due to specific micro-organism that can be cultured and these organisms are :- →

- * pneumococcal pneumonia ←
- * streptococcus . bacterial cause
- * Staphylococcus pyogenus .
- * hemophilic influenza.
- * klebsiella bacteria .
- * Mycobacterium tuberculosis ←

Influenza virus] viral
coxiella virus] cause

pneumocystis carinii — fungal cause

B – **Aspiration Pneumonia**

This is occurred due to presence of some abnormalities in to the bronchial tree that predispose to inhalation of materials from upper respiratory tract and oral cavity .

Normally Haemophilus Influenza + Staphylococcus Pyogenus are the normal flora in the oral cavity and the mouth .

Pneumo coccal Pneumonia

It is called lobar Pneumonia

there is a consolidation in the segment or lobe of one or two lobes of the lungs

→ mainly affect middle age .

→ the onset either rapidly or suddenly with rigor , vomiting , headache , fever and convulsion .

there is dry cough , later on productive cough which is bloody or blood stained , and haemoptysis .

- anorexia , dehydration , tachypnea , tachycardia , R-R /40 no / minute

- chest pain which is of pleuritic type that is ↑ on respiration , therefore the patient is afraid from respiration and the pain is referred to the shoulder and abdomen

<= Examiuation =>

the patient is febrile , dry cough

* bronchial breathing on respiration .

* central cyanosis .

* abnormal breathing sounds like pleural rub

<= Investigation =>

1- complete blood picture ↓ W.B C (leucopenia) .

2- culture of the sputum .

3- X ray which show homogenous opacity at the affected lode or segment

4- blood culture to diagnose Pneumo coccal Pneumonia.

<= Treatment =>

Bed rest , I V fluid , oxygen , which is given by mask or nasal canula with antibiotics .

<= Complications =>

It is usually differ according to the site of the location

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1→ **complications of Pleural and Pulmonary:**

[Pleural effusion , pleurisy , Bronchiactasis] .

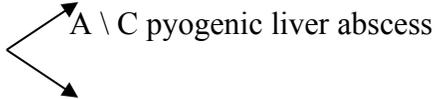
2→ **cardio – vascular complications** →

(bacterimia , shock , peripheral circulatory failure with carditis) .

3→ **Neurological complications** → Meningitis

المحاضرة رقم 2 الطب الباطني / جراحي <= liver abscess =>

It is classified to :-

A- idiopathic pyogenic L . A 

B- Amoebic L.A

A/C Pyogenic liver abscess = C / C pyogenic liver abscess

It is characterized by =>

- multiple abscess , usually associated with biliary and abdominal diseases the condition where there is a pus-filled cavity in the liver secondary to a bacterial infection. Liver abscess may result from sepsis, intestinal perforation, post-operative infection, appendicitis, diverticulitis, trauma (to the liver) or cholangitis. Other nonbacterial causes of liver abscess include amoebiasis, due to infection with *Entamoeba histolytica* (protozoan)

C/C Pyogenic liver abscess =>

It is characterized by single , occur frequently in middle aged women (30 – 45) years , fever , abdominal pain , Hepatomegally and mainly lead to hepatic coma .

<= Diagnosis =>

- 1- complete blood picture (C . B . P) , ↓ HB, ↓PCV , ↑ ESR , ↑ WBC leucocytosis.
- 2- ↓ serum albumin .
- 3- ↑ level of vitamin B 12 .
- 4- ultra sound to see there is an opacity in the RT hypochondria region .
- 5- Liver scan .

<= treatment =>

drainage

antibiotics according to the culture and sensitivity

<= Amoebic liver – Abscess =>

caused by *Endameba histolytica* and it is usually developed after traumatic amoebic dysentery and less frequently occur , and it's appear later on after months or years .

<= Clinical Pictures =>

* fever * weight loss * localized abdominal pain at the RT hypochondria region .
anemia , sweating , rigor , tender liver with rigidity and some times Hepatoma present or sometimes the Liver isn't palpable because of pre – hepatic Heamatoma .

Sources

A- by the way of the Portal vein like =>

Appendicitis , infected cancer of Colon , Diverticulitis , inflammated haemorrid , Actinomycosis of respiratory tract , Amebiasis .

B- from umbilical vein =>

or from para - umbilical vein especially occur in the new born .

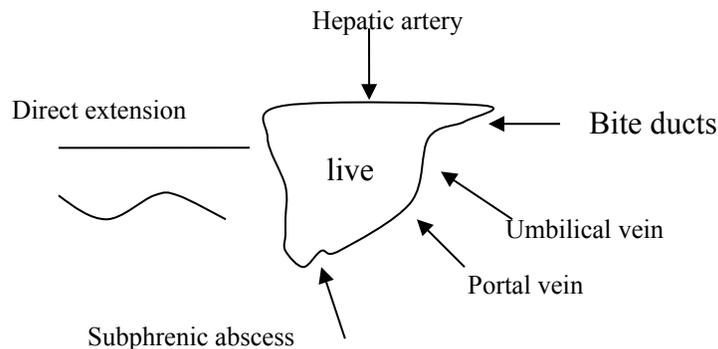
c- from the Bile duct =>

Like stenosis , stricture , rupture common bile duct .

D-By direct extension from subphrenic abscess or penetrating wound.

E- from hepatic artery =>

Like septicemia , infected Hydatid cysts



Diagnosis of Amebic Liver Abscess

- 1- history .
- 2- stool exam to exclude E – Histolytica
- 3- sigmoidoscopy.
- 4- ultra sound to show abscess .
- 5- Chest – X ray which show sign of Pleural effusion .

"Treatment "

- 1- Antibiotics according to the culture and sensitivity .
- 2- flagel (Meteronidazol) 80mg daily/3 T.D for 2 week .
- 3- if the abscess is large need aspiration under general anesthesia

المحاضرة رقم 3
الفصل الدراسي الثاني

Asthma

It is defined as a paroxysmal attack of dyspnea accompanied by wheezing which is result from narrowing of air way passages because of ;

- * bronchial muscle spasm
- * bronchial mucosal secretion .

predisposing factor =>

- 1- emotional stress .
- 2- recurrent respiratory tract infection
- 3- smoking .
- 4- exposure to cold weather .
- 5- heavy exertion
- 6- exposure to allergens like(fumes dander , dust , drugs , tobacco , aspirin)

<= **Clinical picture** =>

sever attacks of dyspnea associated with grasping for air and wheezing and productive cough

- * same cases lead to central cyanosis , tachycardia high grade fever the patient between attacks looks normal .

on examination →

- 1 -The breathing is bronchio- vesicular type.
- 2 – prolong expiration and short inspiration
- 3 – hyper resonance of the chest

Types of asthma →

- 1 – Extrinsic asthma which is called (early onset asthma) mainly occur in children , male and usually there is a topic allergy like foreign bodies , eczema , rhinitis , on exposure to allergy . and there is +ve family history of allergy .

2 – Intrinsic asthma (late onset) which is mainly occur in middle age female and usually there is non a topic allergy and hereditary factors like eggs , milk / fish and usually there is – ve family history of allergy

chronic asthma →

the patient usually complain of continuous wheezing and dyspnea on exertion with mucous cough and recurrent attack of respiratory tract infection

"investigation "

- 1- chest x ray to show hyper inflation of the chest with pigeon picture of the chest..
- 2 - pulmonary function test .
- 3 - skin test (allergic test).
- 4 - blood gases analysis ↓ o₂ , co₂.
- 5 - complete blood picture (↓ HB , ↓ pcv , ↑ esnophilia).

"Treatment "

- 1- avoidance of allergens .
- 2- hyper sensitization of the chest to exposure to allergens .
- 3- drugs which lead to release of mediators causing relaxation of bronchial muscle eg : sodium cromoglycate {intal}
- 4- drugs which control the symptoms associated with it (Vento line , amino- phyelline , adrenaline , hydrocortisone).
- 4- in sever cases of asthma we using oxygen and aminophylline injection with antibiotics to treat infection .

status asthmaticus →

It is usually defined as attacks of asthma associated with sever respiratory distress and arterial hypoxia

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<=Liver Injury=>

The liver is protected by various organs which prevent any injury or trauma to the liver .

Causes →

- 1- car accident .
- 2- stabbing wounds .
- 3- blunt injury .
- 4- fall from height .
- 5- penetrating wounds .
- 6- gun shot injury .

Signs and symptoms →

Shock ,intra peritoneal bleeding, abdominal pain especially at night
hypochondria regain which increased on breathing .

- the abdomen is rigid , tender
- ↑ pulse rate , ↑ R . R.

Investigations →

- 1- x ray of the abdomen to exclude if there is any bleeding in another place
and if there is fracture or rupture diagram or other organs affected.
- 2- Chest x ray to exclude if there is fractures or bleeding or trauma to the lung.

Treatment →

* Blood transfusion * I.V... Fluid * immediate laparotomy for suturing the injury and stop bleeding * antibiotics.

The main problems occur are →

- 1- hematoma , 2- hemobilia , 3-liver abscess ,4- ischemia ,5- infarction of the liver muscle , 6-infection of the peritoneum

المحاضرة لرقم 4
الفصل الدراسي الثاني

← **A/C bronchitis** → **M**

It is an acute inflammation of bronchi

Causes→

- 1- Bacterial infection →Haemophylis Influenza
- 2- streptococcus Pneumonia
- 3- Staphylococcus pyogenus
- 4- Viral infection

Sign and Symptoms→

- 1- Cough with sputum
- 2- retrosternal chest pain which ↑on breathing
- 3- fever which is continuous associated with sweating and some times vomiting may occur .
- 4- dyspnea and wheezy chest

If the infection reach small bronchioles , it cause bronchiolitis and give picture like bronchopneumonia .

Precipitating factor→

- 1- Malnutrition
- 2- smoking
- 3- alcohol Drinking
- 4- cold
- 5- other diseases like DM and renal diseases
- 6- Immune deficiency disease
- 7- Drugs (steroid)

Treatment →

- 1- bed Rest => 15 days
- 2- Ampicline =>500mg 4-T-D
- 3- Tetracycline =>25 mg 4-T-D
- 4- co-trimaxazol(Methoprim) 12 gm =>14 days
- 5- Sédatives (Algesic 2x2 4T-D)
- 6- cough suppressant (Phenylcodine) 3T-D

<=Chronic bronchitis=>

It is defined as two or more attack of productive cough for 2 successive years and it is occur as a response to bronchial mucosal secretion for along continuous of various irritant factors.

Precipitating factors →

- 1- smoking
- 2- dusty atmosphere
- 3- fumes
- 4- Atmospheric pollution
- 5- industrial pollution

It is mainly occur in middle and late age (30-40) years and above >50 years

It is mainly affected ♂ >♀ 2/1 and in smokers > non smoker

signs and symtemes →

- 1- attacks of winter cough, ↑ in severity especially at morning
- 2- the sputum is watery ____ mucous → copious
- 3- wheezy chest especially at morning and night
- 4- sever dyspnea especially on sleeping
- 5- tightness of the chest and difficult breathing

Investigations →

- 1- Chest x ray
- 2- sputum exam for culture and sensitivity
- 3- bronchoscope
- 4- blood exam (Hb, PCV, ESR, WBC count).

Complications →

- 1- Respiratory failure
- 2- cardiac failure

Treatment

Same as acute bronchitis

المحاضرة رقم 5
الفصل الدراسي الثاني

Acute cholecystitis → S

Acute inflammation of the gall- bladder

Causes →

- 1- It is usually associated with obstruction of the neck of the gall- bladder -
- 2- stones
- 3- infection
- 4- mucous secretion
- 5- tumor
- 6- Deformity in the neck of gall- bladder
- 7- calcification
- 8- stenosis

The main bacteria causing infection is **E coli - Staphylo coccus pyogenus** **and** it is more common in ♀ > ♂ especially at middle age (40 50) years

Signs and Symptoms →

- 1- Retro (Rt) upper chondrial pain
- 2- sever vomiting and nausea
- 3- tenderness and Rigidity at Rt hypochondria (region)
- 4- fever (continuous +sweating) and some times rigor
- 5- pallor with generalized weakness
- 6- jaundice in sever cases

Investigations;-

- 1- Ultra sound to exclude stones –obstructions, tumor , calcifications -
- 2- plain x ray of abdomen

- 3- cholecystography
- 4- intravenous cholangiography

Differential Diagnosis →

- 1- Perforated duodenal ulcer -
- 2- acute pancreatitis
- 3- acute appendicitis
- 4- myocardial infarction
- 5- intestinal obstruction

Treatment:-

a- Medical :

- 1- usually conservative treatment and about (90%) Recovery
- 2- bed Rest
- 3- Analgesic (paracetamol)
- 4- Morphine IV -in severe pain
- 5- sedative every 2-3 hours
- 6- I-V fluid if there is severe vomiting
- 7- cotrimoxazole in severe infection and fever for 14 days

b- Surgical :

(cholecystectomy) in case of :-

- Multiple gall stone
- C/C obstruction
- non functioning gall-bladder

← Chronic cholecystitis →

It is usually associated with gall stone mainly affecting the body of gall bladder

Recurrent attacks of biliary colic associated with nausea and vomiting or fever and jaundice

Investigations →

- 1- Plain x ray of abdomen
- 2- Ultra sound
- 3- liver function test
- 4- blood exam (WBC↑) leucocytosis
- 5-Urine exam for bilirubin
- 6-Cholecystography

Treatment

→cholecystectomy .

المحاضرة رقم 6
الفصل الدراسي الثاني

Pleural-Effusion

It is an accumulation of fluid in the pleural cavity

This is of 2 types →:

1- Transudation effusion:

where the fluid contain Albumin less than 3gm/l and the main cause is → nephritic syndrome, heart failure, liver cirrhosis, malnutrition.

2- Exudates pleural effusion:

in which the fluid contain more than 3gm/l of Albumin
The main causes are → post pneumonic , pulmonary T-B, malignancy and pulmonary infarction , Rheumatoid diseases ,inflammatory condition under Diaphragm , like liver abscess, subphrenic abscess, pancreatitis .

"Clinical picture"

The signs and symptoms are dry pleurisy present in the majority of cases including pleuritic pain which characterized by sever pain aggravated by talking deep breathing which make the respiration is shallow, deep , rapid.

There is fever , dyspnea which depend on the amount of fluid accumulated in the pleural cavity .

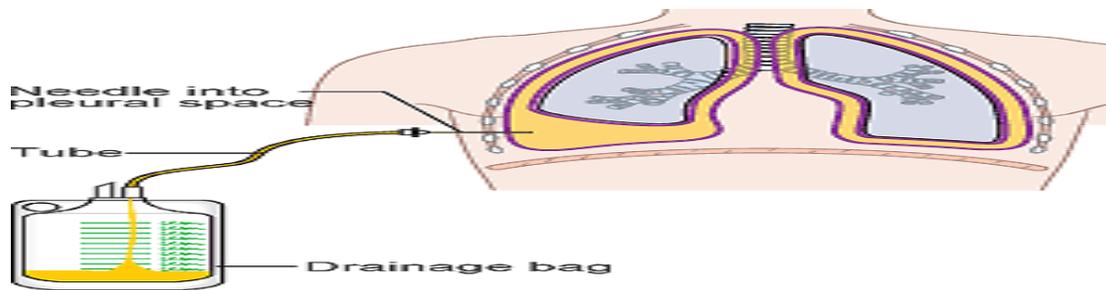
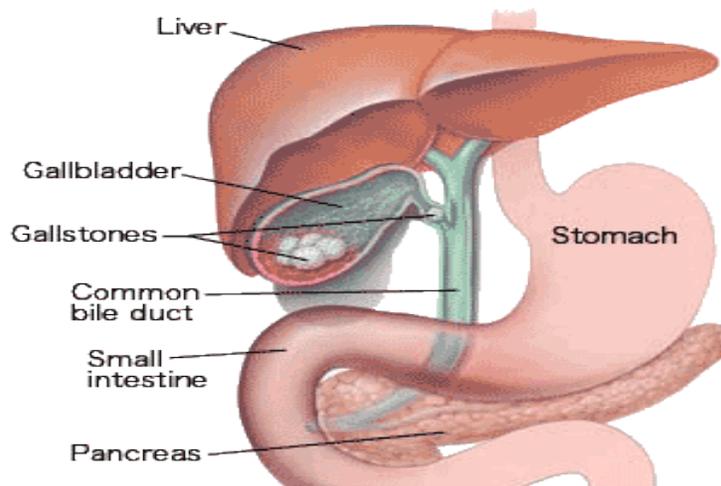


Diagram showing how a pleural effusion is drained
© CancerHelp UK

"Treatment" :

- 1- aspirate the fluid (pleurithesis) -
- 2- study this fluid to bacteriological , cytological and biochemical analysis
- 3- treat the underlying diseases .

<= Gall- stones=> S



The main causes are→ :

1- Metabolic

There is a normally ratio between cholesterol and bile acids in 1/25 and under pathological condition , it is ↑ abnormal metabolize lead to stone formation .

2- infective

Salmonella can be found in some cholesterol stone which agreed the theory about the infective organism .

3- Hemolytic and pigment

Stones contain calcium – bilirubin in the patient with hemolytic anemia .

4- Bile stasis -

usually occur in pregnancy and that support the theory about bile stones which occur in more pregnancy over > 50 year, and have multiple pregnancies .(5f)
female, fatty , fertile , flatus.

" Types of Gall stones"

1- cholesterol stones :

It constitute 6% of Gall stone , whitish in color , single, have a smooth surface and floats in water.

2- Pigment stones :

multiple, small size, deep black in color , constitute 12% of stones.

3- Mixed stone :

they are larger than pigment, multiple and have smooth surface, 80% of stones .

Effect of Gall- stones and complications

A) Effect of Gall stone an Gall-bladder →

- it may be silent (asymptomatic)
- it may present as fluctuation and dyspepsia
- billiay colic or fever, no leucocytosis
- A/C cholecystitis ,C/C cholecystitis
- Empyema of Gall bladder
- gangrene, Perforation and peritonitis
- Ca . of Gall bladder

B) effect of Gall stones on bite duct→

- Obstructive jaundice
- acute cholecystitis , Rt upper abdominal pain , fever, rigors , Jaundice
- A/C or Recurrent pancreatitis

C) effect of Gall stone on intestine →

- intestinal obstruction

Diagnosis

- 1- ultrasonography, not expensive and no risk of radiation .
- 2- E- R-C-P endoscopic- retrograde , cholengo- pancreatography
- 3- oral cholecystography

المحاضرة رقم 7
الفصل الدراسي الثاني

Anemia

It is defined as a state of which Hb level in the blood is below the except for age and sex .

At birth the Hb level is 18g/ dl and gradually in 1st,3d trimester (month), the level rise till age of adolescence

Normally it is about 12-14 / dl in ♀
14-16/ dl in ♂

Hb in adult male usually 2g/ dl more than adult ♀

Cause→

- blood loss
- in adequate production of Hb (or R.B.C)
- excessive destruction of RBC (Heterolysis)

"Classification of Anemia"

A)- blood loss→ A//C, C/C

B)- inadequate production of RBC due to

- deficiency of essential factors like B₁₂
- inversion of bone marrow {leukemia 2° to Ca.}
- toxic factor eig {Renal failure, hepatic failure }
- failure of bone marrow (plastic anemia , or drug used , A plastic anemia)
- Endocrine abnormalities (hypothyroidism)

C)- Excessive destruction of RBC {Hemolytic} due to :

- 1) Intra- erythrocytic defect like hereditary , Spherocytosis and thalasseima , sickle cell anemia)
- 2) Exo- erythrocytic effect e.g Hemolytic anemia, infection , toxic factors , malaria)

←Signs And Symptoms→

Depend on type of anemia and lead to fatigue, dyspnea , excessive palpitation, especially on exertion and there is a headache , fever and dyspnea , anorexia .

"treatment"

according to the causative agent

Iron deficiency – Anemia

It is the commonest type of anemia

Causes→

- 1- Inadequate intake of iron in diet
- 2- inadequate absorption of iron due to abnormalities in Gastro intestinal - tract disease
- 3- blood loss→ bleeding, menstruation
- 4- worm infestation –A chloro hydria
- 5- pregnancy
- 6- in children due to delay milk weaning of milk is poor source of Fe

Signs and symptoms →

- generalized weakness and angular Stomatitis
sore throat, brittle finger and , chloronychia

Treatment→

- iron supplementation orally

Fe)anemia is hypochromic microcytic

folic +B₁₂ anemia) is hypo chromic macrocytic

Haemolytic Anemia

Hb +Jaundice ,↑WBC count, Gall stones , splenomegally treated by blood transfusion

'Thalassemia'

type of hemolytic anemia due to failure of production of normal Hb (HbA)

there are 2 type →

MINOR + MAJER type and duo to inherited cause

The patient get anemia splenomegally , bone changes due to bone hyper activity .

Treated by

Repeated blood transfusion to keep Hb above 10 g/ dl + splenectomy
+bone marrow transplantation

"Sickell- Cell –Anemia"

It is a type of abnormal Hb, which is Hb S instead of Hb A

It lead to anemia and infarction with crises during passage through small vessels , and ↓O₂ tension +cooling + fever pain (bone pain, muscle pain, abdominal pain).

المحاضرة رقم 8
الفصل الدراسي الثاني

Ruptured Spleen→

It is the commonest internal injury producing by non- penetrating trauma to abdominal wall

it may occur alone or with other ribs fractures , liver or kidney damage

Clinical features →

1-Massive bleeding with rapid destruction lead to shock, because of bleeding and avulsion from splenic pedicle .

2- following injury there is a sign and symptoms of massive progressive blood loss +peritoneal irritation (↑PR+↓ BP+ abdominal) pain in the LT trunk, referred pain to LT +shoulder

Exam →

Rigidity, tenderness all the abdomen or confined to LT side, collection of blood

3- delayed rupture=> it is occurs after several days form injury lead to subcapsclure heamatoma

4- spontaneous rupture due to disease like malaria, leukemia , glandular fever

Investigations →

1- urine → haematuria suggest renal damage

2- chest x ray → if rib fracture , rupture diaphragm or lung damage

3- x ray abdomen

treatment →1- blood transfusion
2- splenectomy

Acute pancreatitis → S

Disorder due to Digestion of pancreatic cells by its own enzymes ,
it is mild condition , the cells are swollen and edematous, and in severe cases
There is a hemorrhagic necrosis and is more between 40-70 years of age

Etiology → :

50% associated with biliary disease

20% alcoholism

20% unknown cause

but it was found that follow

1- renal transplantation

2-certain drugs like cortisone , contraceptives

3- abnormal trauma , surgery

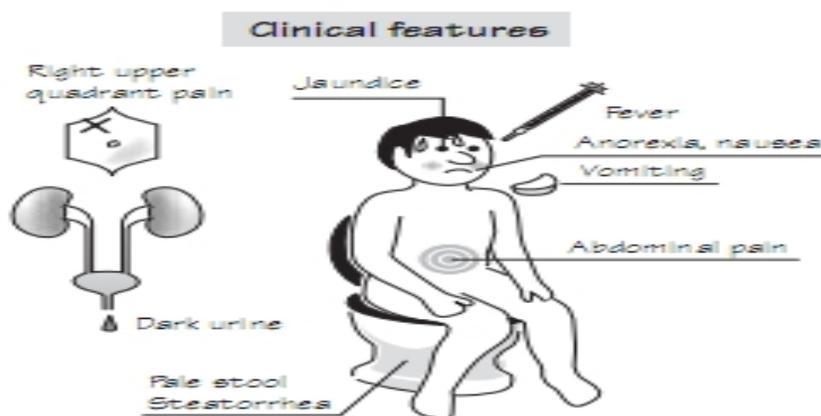
4- mumps

5- hypoparathyroidism, hyperlipidemia , hyperthermia

Signs and Symptoms →

Severe agonizing pain in the epigastria or RT hypochondria region

- the pain radiating to back + nausea with vomiting
- fever + mild jaundice
- shock in severe cases



Differential Diagnosis →

- 1- M-I
- 2- perforated DU
- 3- A/C cholecystitis
- 4- A/C appendicitis

Investigation → :

- 1- Blood exam
- 2- ↓ glucose level (hypoglycemic)
- 3- hyper calciemia ↑ca⁺
- 4- plain x ray – abdomen
- 5- barium meal
- 6- Ultrasound exam

Treatment →

A-conservative treatment

- Relief pain by morphine , pathadine
- treat shock by I.V. fluid
- give Antibiotics
- treat hyer calcemia , glucosurea

المحاضرة رقم 9 الفصل الدراسي الثاني

← Leukemia →

abnormal proliferation of leukopoietic tissue throughout the body, usually there is an increase in WBC count and it is progressive, a fatal condition causing death because of anemia, bleeding, repeated infection and the patient may survive for few months to several years.

Causes → 1- unknown
2- Chromosomal abnormalities
3- irradiation
4- Viral may be the cause

Classification → :

- 1- A/C lymphoblastic leukemia
- 2- A/C Non lymphoblastic (myeloid)
- 3- C/C lymphoblastic leukemia
- 4- C/C non-lymphoblastic myeloid

In A/C form, the life is threatened and death may occur while in chronic form the patient may survive for years.

Diagnosis =>

Bone marrow exam + blood film (CBP)

Treatment → chemotherapy + radiotherapy

<= Acute leukemia =>

A/C myeloid leukemia is the common type except in young age where A/C lymphoblastic is common

Signs and Symptoms :

Fever , malaise, epistaxis, anemia , bleeding gum, purpura , sore throat , ulcer in mouth ,Gum hypertrophy , in a/c monoblastic , muscle and joint pain, spleen and liver enlarged , cervical lymphadenopathy

Investigation →

1- ↓Hb level 2- ↑WBC, it may be low as 1000 kc_m^3 or as high 5000,000 ka_3

3- blood film (a blast cell can be found)

4-bone marrow is hyper cellular and normal cells are replaced by leukoplasmic cells .

Treatment →

*-- Specific therapy(cytotoxic drugs + radiotherapy + bone marrow transplantation)

●Supportive therapy :-

- treat anemia
- treat infection
- Psychological therapy support

Chronic Pancreatitis

The cause is unknown in origin but some cases related to gallstone

-Mal nutrition

- Stenosis mainly in ♂ between age 35- 45 years

Signs and Symptoms

Abdominal pain , tenderness , jaundice , steatorrhea

Investigation →

-- plain x ray of abdomen -

-- barium meal -

-- ultra sound

-- Endoscope retrograde pancreatography

Treatment →

- treat pain by narcotics -
- Diet containing (CHO +protein) / daily
- 40 g of fat if there is steatorrhea
- Cimitidine
- Oral hypoglycemic drug or insulin in DM
- pancreatic extracts between meals

Sugary in case of →

- * intractable pain
- billiary colic
- stones , tumor
- * sever complications

Lymphoma

it is of 2types.

- 1-Non Hodgkin lymphomes
- 2- Hodgkin lymphoma

Hodgkin lymphoma

It is a malignant disease of hemophilic, characterized by presence of painless enlargement of lymphoid tissue through out the body which occur in both sex (in adolescents + early adult life) and it may be found in older age group .

Histological it is divided in to 4 types :

- 1-Lymphocyte predominant
- 2- nodular sclerosing __ most comment
- 3- mixed cellularity → 2nd comment
- 4- lymphocyte depletion

Signs and Symptoms

The onset is gradual with enlargement of one group superficial L-N may be start in cervical L-N and medistinum , axillary L-N , rarely abdominal , pelvic, inguinal L.N

L-N is painless, discrete. rubbery, skin over lying is freely mobile progressive symptom's are fever , dyspnea dysphagia, obstructive Jaundice

General Symptoms

- 1- Progressive weakness, loss wt, fever
- 2- bouts of fever for few days followed by a febrile period
- 3- Purities in 10%
- 4- splenomegally in late stage

Investigations →

- 1- C-B-P, blood film
- 2- anemia (normochromic monocytic), eosophilia in 10-19%
- 3- WBC maybe normal or ↓
- 4- bone marrow aspiration + biopsy in late stage
- 5- definite diagnosis is by L-N biopsy

Treatment →

Chemotherapy + radiotherapy combination according to stages of disease

<= Non Hodgkin's lymphoma =>

it occur in all age group rarely under 2 years ♂ > ♀
unlike Hodgkin lymphoma , it is widely spread out tissue
lymph nodes are painless enlargement , splenomegally may be present

General symptoms →

Tiredness , wt loss , sweating ,fever .

pressure symptoms →

Dysphagia , dyspnea , paraplegic, intestinal obstruction, Ascitis , bone pain , pathological fracture , splenomegally

Diagnosis →L-N-biopsy

Treatment Radiotherapy +Chemotherapy or both

surgery in extra lymphatic tissue invasion with radio therapy with or without Chemotherapy

General measures →

Blood transfusion, treat infection