# Diseases affecting different parts of the body



# Pnuemonia

Pneumonia is an inflammation of the one or both lungs in the lower respiratory tract that involves lung parenchyma including alveoli and supportive structure. It is also called pneumonitis.

Causes: it can be caused by a wide variety of etiologic agents including bacteria virus, aspiration, fungi, mycobacterium mode of transmission, clinical manifestation vary depending on the etiologic agents.

Pneumonia are classified according to causative organism. They are:

- Bacterial pneumonia: The most common cause of pneumonia in adults
  is a bacterium called Streptococcus pneumonia. This form of
  pneumonia is sometimes called pneumococcal pneumonia. other types
  of bacteria can cause pneumonia, including: homophiles influenza,
  staphylococcal aureus, Mycoplasma pneumonia, Chlamydophila
  pneumonia.
- Viral pneumonia: Viruses can also cause pneumonia, influenza ' A'
  most common with the patient of AIDS. Viruses are a common cause of
  pneumonia in young children.
- Aspiration pneumonia: The object or substance inhaled causes
  irritation in the lungs or damages them. This is called aspiration
  pneumonia. Rarely, pneumonia can be caused by breathing in: vomit, a
  foreign object, such as a peanut, a harmful substance, such as smoke
  or a chemical.

 Fungal pneumonia: It more often affects people whose immune systems are weakened. Fungal pneumonia includes histoplasmosis, coccidioidomycosis and blastomycosis.

# Sign and symptoms:

- Sudden onset of high fever.
- Shaking chills and sweating.
- Coughing, sneezing, nasal congestion.
- Shortness of breath
- Rapid Shallow breathing
- Hypotension
- Muscle pain
- Confusion
- Headache
- Weakness, malaise
- cyanosis
- Nausea and vomiting
- Diarrhoea
- Sharp stabbing chest pains during coughing or deep breath.
- Cough producing unpleasant sputum, which may be green, rusty or blood stained.

## **Diagnosis:**

- History of the patient.
- Physical examination (auscultation)
- Chest x-ray
- Sputum test for culture
- Bronchoscope

- Blood culture
- Liver function test
- CT scan

#### **Treatment:**

Bacterial pneumonia treated by antibiotic (Penicillin, Ampicillin).

Anti -Inflammatory drugs (ibuprofen, aspirin, and paracetamol).

Anti-viral drugs, steroids.

Chest physiotherapy

Bed rest until infection shows sign of clearing.

Given oxygen to improve ventilation.

High level of fluid intake.

Deep breathing and coughing

## **Prevention measure:**

Avoiding smoking, alcohol and cold, vaccination (vaccine against influenza), good hygiene.

# Asthma:

Asthma is a respiratory condition marked by wheezing. Asthma affects the airways of the lungs. The airways become narrow and sometime produce more mucus than usual.

http://www. hse. gov. uk/asthma/

Exact cause is unknown

Asthma is caused by inflammation in the airway. The inflammation irritates the muscles around the airways, and causes them to squeeze (constrict). This causes narrowing of the airways. It is then more difficult for air to get in and out of the lungs. This leads to wheezing and breathlessness. The inflammation also causes the lining of the airways to make extra mucus which causes cough and further obstruction to airflow.

# Sign and symptoms:

feeling breathless (you may gasp for breath)

a tight chest, like a band tightening around it

wheezing, which makes a whistling sound when you breathe

coughing particularly at night and early morning

attacks triggered by exercise, exposure to allergens and other triggers

Sweating, restless

# **Diagnosis:**

History taking, physical examination, sign and symptoms, spirometry test, peak spirometry flow rate test, airway responsiveness tests, test of airway inflammation, test of allergy

#### **Treatment:**

asthma cannot be cure but some treatments are for rapid relief of symptoms. Such as inhaled steroids, inhaler (puffer), Bronchodilator (salbutamol, nebulizer), give sodium cromoglycate to prevent attacks,

#### **Prevention:**

The common cold- avoid expose to cold environment, the effects of a cold can last for a long time unless you are given increased treatment. Asthma attacks are often set off by allergies. Common things which people with asthma are allergic to are grass pollen, house dust and animal fur (including your own pets).

Exercise- running, particularly in cold weather, can cause an asthma attack.

However, exercise-induced asthma can be controlled. People with asthma should not avoid sport and exercise – they contribute to overall good health.

Irritants -like tobacco smoke, fumes and a dusty atmosphere will often lead to asthma attacks.

Emotion – anger, anxiety or happiness – can bring on an attack of wheezing in some people with asthma. But it is not true that 'nerves' are the underlying cause of asthma.

Pollution- especially from traffic, is increasingly recognized as making asthma worse.

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# **Diseases of the Digestive System:**

# **Peptic ulcer:**

A peptic ulcer is an area of damage to the lining of either the stomach or the wall of the small bowel. Peptic ulcer named accordingly to their location. eg esophageal ulcer, duodenal ulcer, gastric ulcer. Most common in duodenal ulcer.

#### **Causes:**

Infection from helicobacter pylori.

Take non-steroidal anti- inflammatory drugs a long period. E. g. ibuprofen, aspirin.

Constant tension and stress is another contributing factor.

Excessive secretion of HCL acid in the stomach can also lead to peptic ulcer. Such as caffeine, smoking, alcohol increase HCL secretion.

#### **Sign and symptoms:**

Symptoms may last a few days, weeks, or months.

Sometimes symptoms can disappear but reappear months, afterwards, often with no identifiable cause.

Sometimes, the patient may even be symptom-less.

Other symptoms include: heartburn, a bitter taste in your mouth, feeling sick or vomiting, regurgitating food, gnawing pain in mid epigastrum or back,

Weight lost, bleeding, perforation

## **Diagnosis:**

- History taking
- Physical examination
- · H. pylori test
- Endoscopy
- MRI, CT scan,
- Urea breath test
- Barium contrast x- ray
- Blood test

#### **Treatment and prevention:**

Self-help: like, avoid spicy food, alcohol, caffeine, excessive meat, milk and cream consumption. This will reduce pain. Reduce stress, stop smoking, eating regular meals and not missing meals will also neutralize acidity. Avoid steroid drugs and painkiller.

Medicine: proton pump inhibitor, such as omeprazol and lansoprazol. H2 blockers, example, ranitidine and cemetidine.

Treating H. pylori infection. This is usually a combination of a proton pump inhibitor and two antibiotics.

http://hcd2. bupa. co. uk/fact\_sheets/html/peptic\_ulcer. html

#### Gallstone:

Gallstones usually form in the gall bladder from the solid constituents of bile. They can be made of pigment or cholesterol. They vary greatly in size, shape and composition. Gallstones are uncommon in children, but become increasingly prevalent after 40 years age.

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Sex: women are twice as likely as men develop gallstone due to excess produce estrogen in pregnancy, hormone replacement therapy to increase cholesterol level and reduce gallbladder movement

Family history

Weight: overweight increased cholesterol reduces gallbladder emptying. Especially in woman.

Diet: diet in a fat and cholesterol and low fiber increase the risk of gallstone.

Age: People older than age 60 are more likely to develop gallstones than younger people. As people age, the body tends to secrete more cholesterol into bile.

Diabetes: People with diabetes generally have high levels of fatty acids called triglycerides. These fatty acids may increase the risk of gallstones.

Cholesterol-lowering drugs: Drugs that lower cholesterol levels in the blood actually increase the amount of cholesterol secreted into bile. In turn, the risk of gallstones increases.

# Sign and symptoms:

- steady pain in the right upper abdomen that increases rapidly and lasts
   from 30 minutes to several hours
- pain in the back between the shoulder blades
- pain under the right shoulder
- nausea and vomiting
- fever

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• Abdominal bloating, intolerance of fatty foods, belching, gas and indigestion.

# **Diagnosis:**

Computerized tomography

Cholescintigraphy

Endoscopic retrograde cholangiopancreatography (ERCP)

Magnetic resonance cholangiopancreatography (MRCP)

Blood tests

Ultrasound

Treatment:

Surgical: Cholicystectomy

Medical: lithotripsy

Prevention:

Anyone can have gallstones, but middle aged, overweight women are particularly likely to develop the problem.

# Diseases of endocrine system

# Goiter:

Goiter is an enlargement of the thyroid gland. There are many forms:

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- Simple goiter: is most commonly due to the lack of iodine. The gland is overactive and is enlarged and often visible.
- Hyperthyroidism: is a disease in which the thyroxin level is too high.
- Hypothyroidism: is caused due to the lack of thyroxin in blood.

not getting enough iodine in the diet, over production, unproduction of hormones, family history, age, sex.

# **Sign and symptoms:**

Neck mass, weakness, breathing difficulties, weight loss, tachycardia, swallowing difficulties, hoarseness, cough, dizziness, palpitation, hyperactivity

# **Diagnosis:**

Sign and symptoms, history taking, physical examination, ultrasound of thyroid, x- ray, thyroid scan, thyroid stimulating hormone (THS) test, free thyroxin (T4), biopsy

#### **Treatment and Prevention:**

Simple goiter can be treated with thyroid hormone in the form of pill, antithyroid drugs (propylthiouracil, methimazole), suppressive therapy (levothyroxine), thyredectomy, getting enough iodine in the diet.

# **Cushing's syndrome:**

Cushing's syndrome is a condition in which the adrenals secrete excess of cortisone. Cushing's syndrome is relatively and most commonly affects adult aged 20 to 40. People who are obese, type two diabetes, high blood pressure have an increased risk of developing the disorder.

Body is exposed to an excess of glucocorticoid hormones over a long period of time. The most common cause of this excess is the taking of oral steroid treatment for medical conditions such as rheumatoid arthritis and other inflammatory conditions.

## Sign and symptoms:

- Weight gain around the chest and abdomen
- Red and rounded face (moon face)
- Look like buffalo hump
- Thin and weak muscles in the leg and arms
- Fluid retention in the leg
- Excessive facial and body hair
- Euphoria, infertility
- High blood pressure
- Purple or pink stretch marks appear on the abdomen, thighs, buttocks, arms and breasts
- Skin becomes fragile and thin, bruises easily

## **Diagnosis:**

History taking, physical examination, Blood test, urine test, x-ray, CT scan, MRI

#### **Treatment:**

- Cortisol -inhibiting drugs
- Surgery
- Radiation
- Chemotherapy

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