Anatomy and Physiology

• Liver
  – Largest solid organ in the body
  – Plays role in:
    • Digestion
    • Absorption
    • Metabolism

Anatomy and Physiology

• Liver
  – Plays role in
    • Blood clotting
    • Manufacture of important chemicals
    • Storage of nutrients

Common Signs and Symptoms

• Liver Disease
  – Jaundice
  – Pain is the most common symptom

Anatomy and Physiology

• Gallbladder stores bile until needed
• Pancreas produces and excretes most of the intestinal enzymes
Diagnostic Tests

- Liver function tests measure bilirubin, albumin, alkaline phosphatase
- Ultrasound, X-rays, CAT scan
- Biopsy
- Blood tests to measure pancreatic function

Liver Diseases

- Hepatitis
  - Inflammation of the liver
  - Causes include chemical actions of drugs, toxic substances, chronic alcoholism, group of viruses
  - Viral hepatitis is the most prevalent

Liver Diseases

- Hepatitis
  - Symptoms
    - Jaundice
    - Malaise
    - Anorexia
    - Myalgia

Liver Diseases

- Hepatitis
  - Symptoms
    - Fever
    - Abdominal pain
    - Dark-colored urine (hepatomegaly)
    - Clay or light-colored stools

Liver Diseases

- Hepatitis
  - Treatment
    - Rest
    - Good nutrition
  - Prevention
    - Good hygiene
    - Special care when handling needles and body fluids

Liver Diseases

- Viral Hepatitis occurs in five types
  - A, B, C, D, E
- Hepatitis A: benign; spread by oral-fecal contact
- Hepatitis B: formerly called “serum hepatitis” spread by blood, urine, feces, saliva, and semen
Liver Diseases

- Hepatitis C: spread by blood or sex
- Hepatitis D: “delta virus” requires presence of hepatitis B to replicate
- Hepatitis E: spread through fecal-oral contact, commonly due to water contamination

Liver Diseases

- Cirrhosis
  - Chronic, irreversible, degenerative
  - Replacement of normal liver cells with nonfunctioning scar tissue called “hobnail liver”

Liver Diseases

- Cirrhosis
  - Most common cause is chronic alcoholism
  - Symptoms
    - Loss of appetite
    - Nausea
    - Indigestion
    - Weakness and weight loss

Liver Disease

- Liver Cancer
  - Primary and benign tumors of liver are rare
  - Usually discovered late or end stage
  - Diagnosis confirmed by biopsy
  - Treatment may involve surgery, radiation, chemotherapy

Gallbladder Diseases

- Cholecystitis
  - Inflammation of gallbladder usually caused by obstruction of bile due to gallstone
  - Diagnosis is made by ultrasound, cholecystogram

Gallbladder Diseases

- Cholecystitis
  - Symptoms
    - Mild to severe RUQ pain
    - Nausea and vomiting after eating
  - Treatment surgical excision
Gallbladder Diseases

- Cholelithiasis
  - Gallstones in gallbladder or bile ducts
  - Symptoms
    - Nausea
    - Vomiting
    - RUQ pain following meals with fat

Gallbladder Diseases

- Cholelithiasis
  - Risk factors include excessive weight, increasing age, female

Pancreas Diseases

- Pancreatitis - Inflammation of pancreas
  - Symptoms
    - Severe abdominal pain radiating to back
    - Nausea
    - Vomiting
    - Diaphoresis
    - Tachycardia

Pancreas Diseases

- Pancreas Cancer
  - Usually adenocarcinoma occurring in head of pancreas
  - Symptoms:
    - Abdominal pain
    - Back pain
    - Nausea
    - Vomiting
Pancreas Diseases

- Pancreas Cancer
  - Symptoms
    - Loss of appetite
    - Weakness
    - Jaundice
    - Fatigue
  - Diagnosis confirmed by biopsy
  - Treatment
    - Surgical resection
    - Radiation and chemotherapy