Part 2,
Pathology of the Neck and Chest

Paraganglioma
Glomus tumor

- Description
  - Benign, slow growing, highly vascular lesion
  - Named according to location, ex.:
    - Glomus vagale – carotid space above the carotid bifurcation (most common)
    - Glomus jugulare – jugular foramen
    - Glomus tympanicum – middle ear

Paraganglioma
Glomus tumor cont.

- Etiology
  - Benign tumor arising from the neural crest paraganglion cells of the head and neck

Paraganglioma
Glomus tumor cont.

- Epidemiology
  - May be multiple in 5% of patients
  - Approx. 30% have a familial history

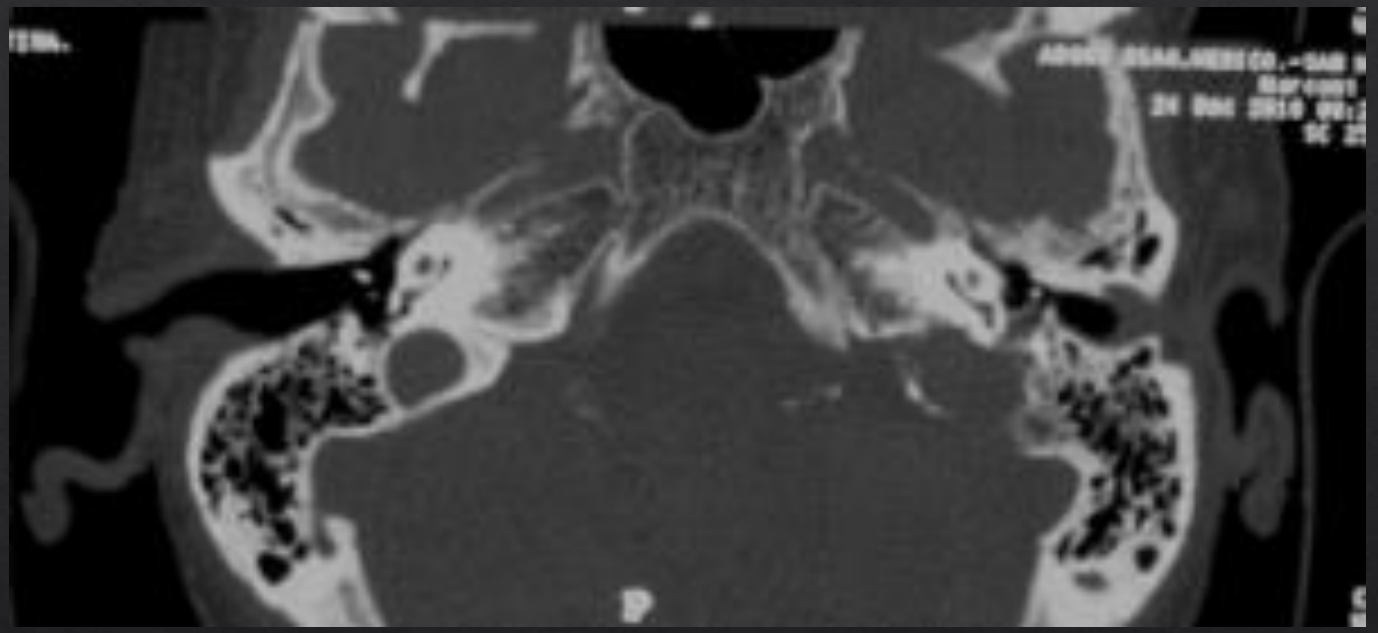
Paraganglioma
Glomus tumor cont.

- Signs / symptoms
  - Depends on location

Paraganglioma
Glomus tumor cont.

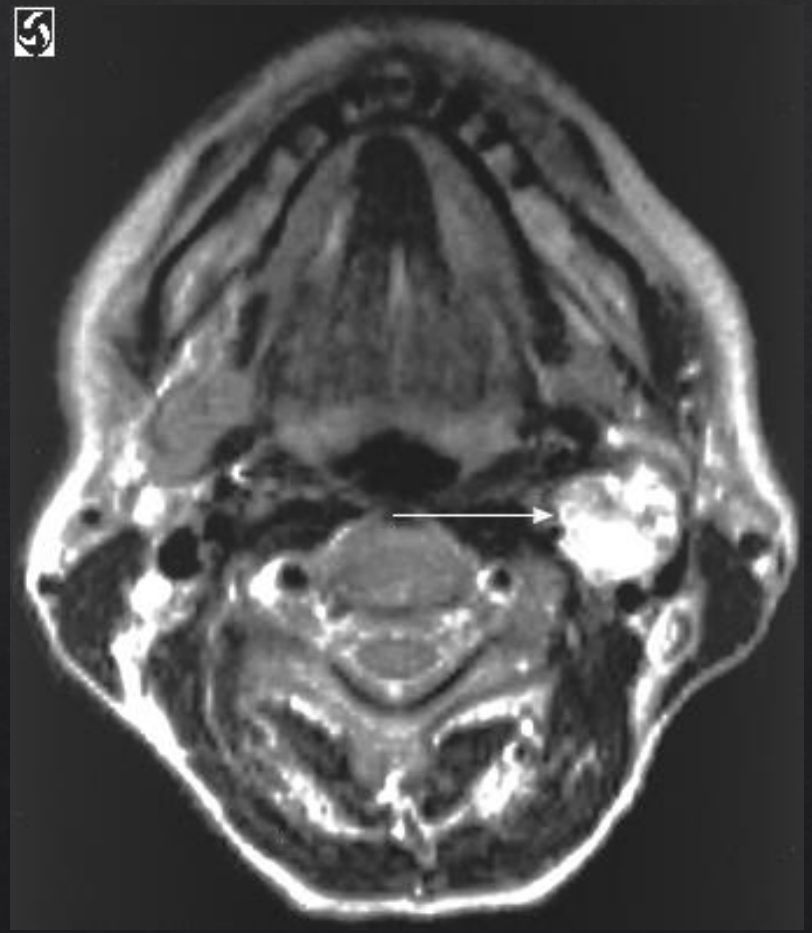
- Imaging characteristics
  - Enhancing, well-circumscribed, soft tissue mass seen on IV contrast enhanced study
- Treatment
  - Surgery, Rad Tx, or both
- Prognosis
  - Good

Paraganglioma
Glomus tumor cont.



http://www.dizziness-and-balance.com/disorders/tumors/glomus.html

Paraganglioma
Glomus tumor cont.



http://brighamrad.harvard.edu/Cases/bwh/images/74/R27A2.GIF

Parotid Gland Tumor
Benign Adenoma

- Description
  - Benign or malignant tumors of the parotid salivary glands
  - The parotid gland is most often involved, because it is the largest
- Etiology
  - Radiation is suspected to be the cause of both benign and malignant lesions

Parotid Gland Tumor
Benign Adenoma cont.

- Epidemiology
  - Average age between 40 – 60 years
  - Greater than 80% of parotid tumors are benign mixed tumors (pleomorphic adenomas)
  - Tendency towards malignancy increases in the submandibular and sublingual glands

Parotid Gland Tumor
Benign Adenoma cont.

- Signs / symptoms
  - Benign tumors – palpable, discrete and mobile
  - Malignant tumors – palpable lump or mass, with following symptoms:
    - Pain
    - Rapid expansion
    - Facial nerve weakness

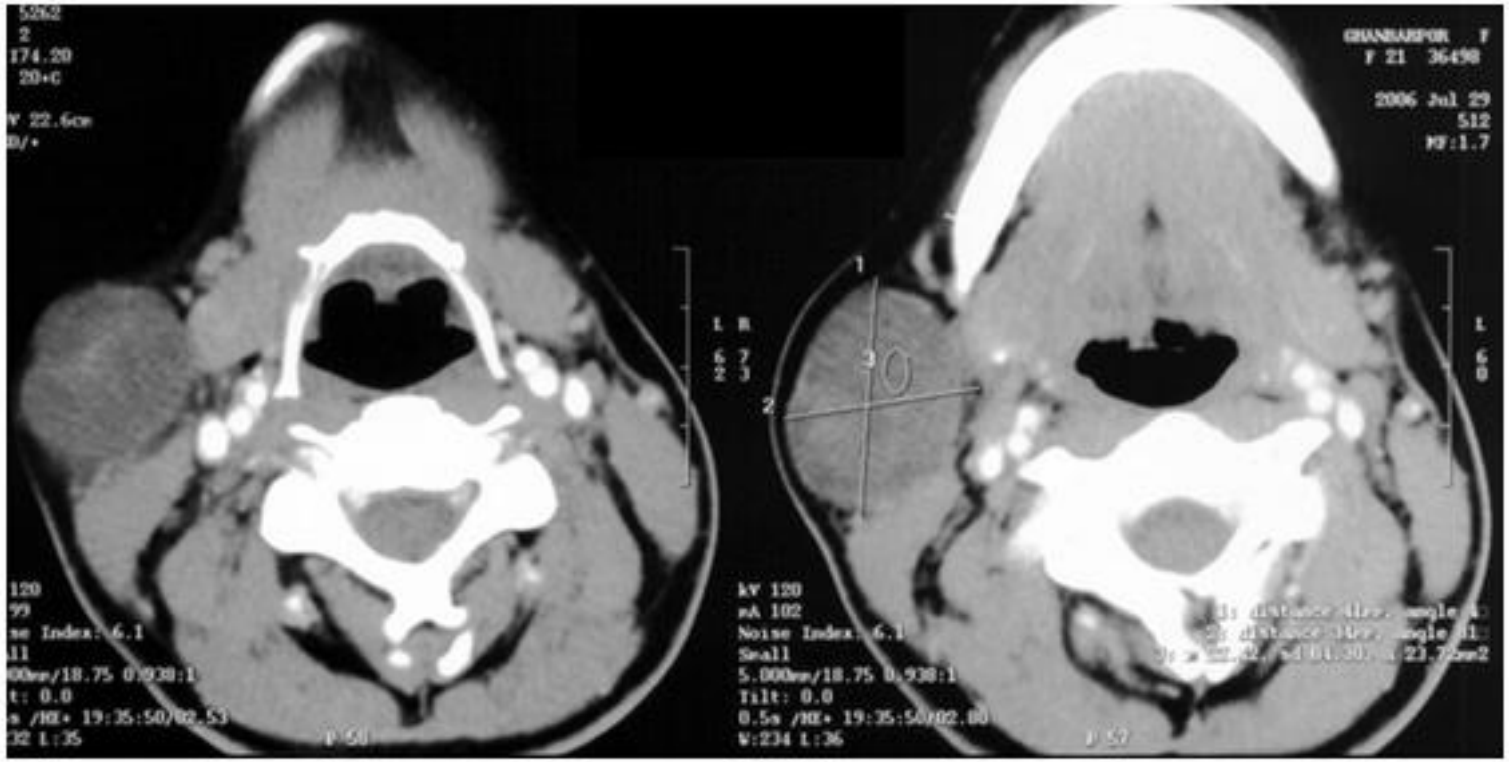
Parotid Gland Tumor
Benign Adenoma cont.

- Imaging characteristics
  - Round mass with density similar to muscle against fatty background of parotid gland
    - Mild to moderate enhancement post IV contrast
- Treatment
  - Surgical resection of benign tumors
  - Complete surgical resection, with Rad Tx for malignant lesions

Parotid Gland Tumor
Benign Adenoma cont.

- Prognosis
  - Good – 80% of parotid tumors are benign
  - Malignant tumor outcomes depend on staging, early detection and treatment
  - 10 year survival rates:
    - Stage I – 90%
    - Stage II – 65%
    - Stage III – 22%

Parotid Gland Tumor
Benign Adenoma cont.



https://www.google.com/search?q=ct+craniopharyngioma&espv=2&biw=1137&bih=886&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj33aznqODQAhWKv1QKHZjSBw4Q_AUIBigB#tbm=isch&q=ct+scan+parotid+adenoma&imgrc=1rpiGnnU92o7HM%3A

Submandibular Salivary Gland Abscess

- Description
  - Mucus-filled retention cysts
  - Derived from obstructed or traumatized salivary ducts

Submandibular Salivary Gland Abscess cont.

- Etiology
  - May be caused by a stone in the gland, or in Wharton's duct
  - Inflammation of the surrounding lymph nodes may arise secondary to:
    - Dental abscess
    - Infective lesion of tongue, cheek, mandible

Submandibular Salivary Gland Abscess cont.

- Epidemiology
  - Unknown
- Signs / symptoms
  - Skin thickening, edema of the fat and gas within the tissues in more than 50% of cases
  - Pain and tenderness in the area of the affected gland

Submandibular Salivary Gland Abscess cont.

- Imaging characteristics
  - Low density cystic mass
    - May show contrast enhancement
- Treatment
  - Antibiotics
  - Possible surgical intervention
- Prognosis
  - Good, with early diagnosis / treatment

Submandibular Salivary Gland Abscess cont.

https://www.google.com/search?q=ct+craniopharyngioma&espv=2&biw=1137&bih=886&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj33aznqODQAhWKv1QKHZjSBw4Q_AUIBigB#tbm=isch&q=ct+scan+submandibular+salivary+abscess&imgrc=xoLfeffdTGajQM%3A

Aortic Dissection

- Description
  - Occurs when blood enters the wall of the artery, between layers
  - Creates a cavity, or false lumen within the wall
  - Two types, according to Stanford classification scale:
    - Type A – involves ascending aorta
    - Type B – involves descending aorta

Aortic Dissection cont.

- Etiology
  - Results from a tearing of the arterial wall
- Epidemiology
  - Peak incidence 60 – 80 years of age
  - Males > female occurrence
  - 60% Type A
  - 40% Type B

Aortic Dissection cont.

- Epidemiology cont.
  - Predisposing factors:
    - Hypertension (most common)
    - Coarctation
    - Bicuspid aortic valve
    - Aortitis
    - Pregnancy
    - Marfan syndrome

Aortic Dissection cont.

- Epidemiology cont.
  - May be iatrogenic and result from:
    - Aortic cannulation
    - Bypass grafting
    - Cross-clamping
    - catheterization

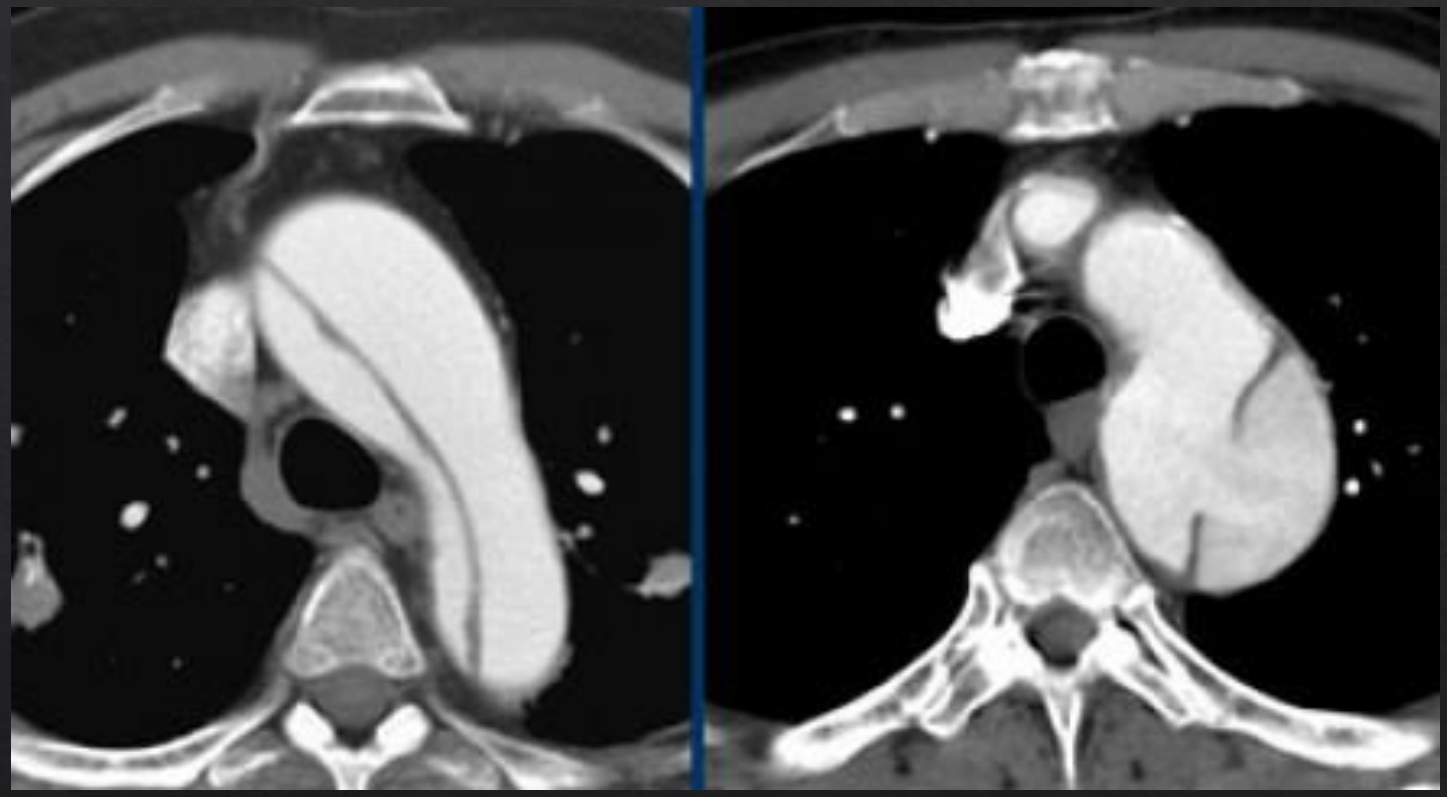
Aortic Dissection cont.

- Signs / symptoms
  - Pain in chest / abdomen
  - 15 – 20% asymptomatic
- Imaging characteristics
  - CT with IV contrast bolus is the best modality
    - Pre-contrast images show enlarged aorta, intimal flap and intimal calcifications
    - Thrombosed false lumen will show higher attenuation pre-contrast
    - Post-contrast show contrast-filled true and false lumens separated by the intimal flap
    - Delayed enhancement of the false lumen seen post-con

Aortic Dissection cont.

- Treatment
  - Depends on Type:
    - Type A usually require surgery
    - Type B usually managed medically t control hypertension
- Prognosis
  - Good with Type B
  - If untreated, Type A has high mortality rate, and may result in cardiac tamponade

Aortic Dissection cont.



http://www.radiologyassistant.nl/en/p441baa8530e86/thoracic-aorta-the-acute-aortic-syndrome.html

Pathology of the Abdomen

Liver

Cavernous Hemangioma

- Description
  - Most benign hepatic tumors
  - Single or multiple
  - Usually small (1-2 cm diameter)
  - Mostly “silent”

Cavernous Hemangioma cont.

- Etiology
  - Composed of large vascular channels
- Epidemiology
  - Occurs in all age groups
  - Female occurrence > male
  - Incidence of 1-2% of normal adult population (up to 20% at autopsy)

Cavernous Hemangioma cont.

- Signs / symptoms
  - Usually none (incidental finding)
  - May experience upper abdominal pain, when symptomatic
- Imaging characteristics
  - Non-contrast studies appear hypodense
    - Post IV contrast serial imaging demonstrates a peripheral enhancement which fills the low central density area over time.

Cavernous Hemangioma cont.

- Treatment
  - Usually none, unless tumor is large and symptomatic
- Prognosis
  - Good

Cavernous Hemangioma cont.

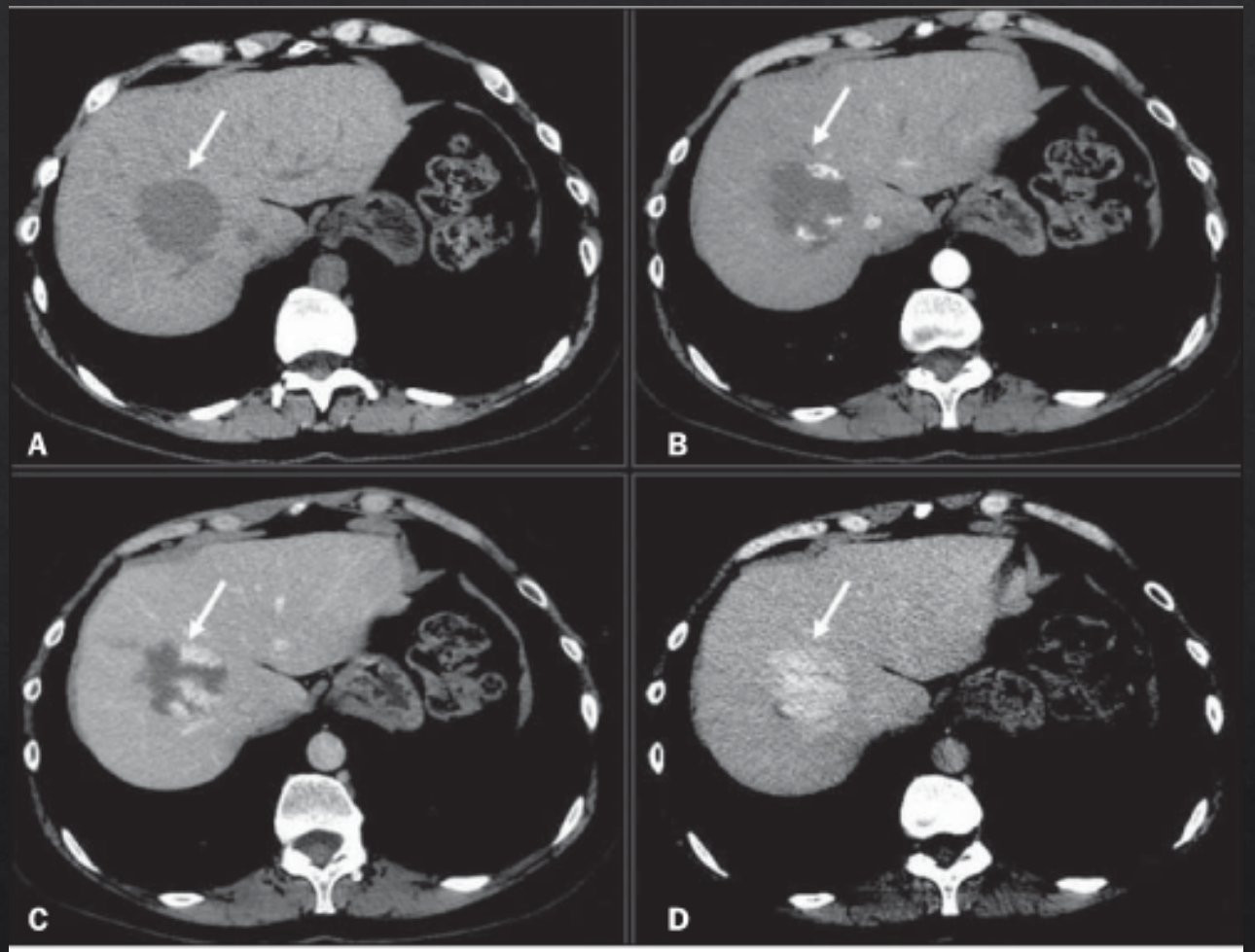
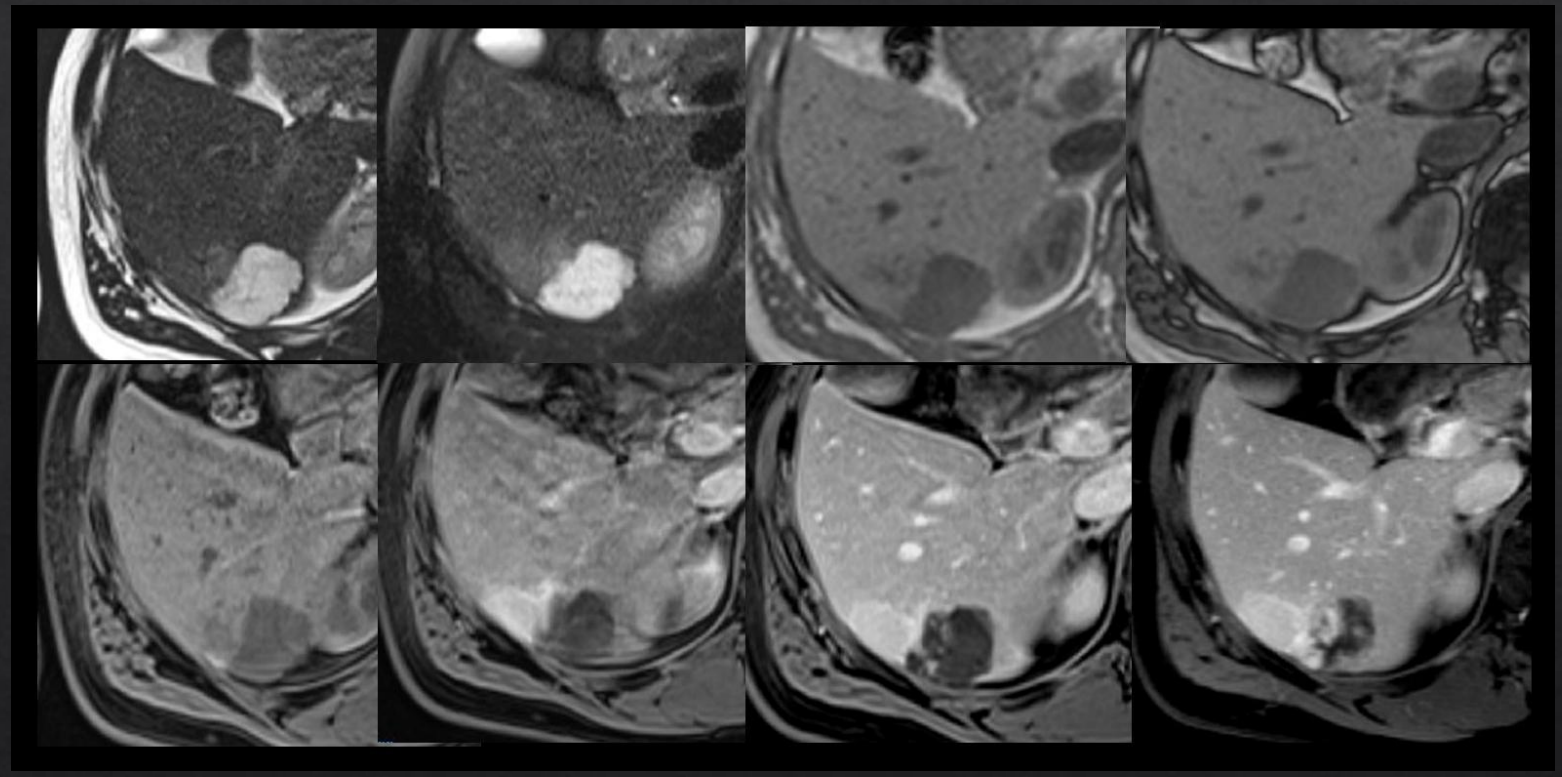


Figure 2. Typical hepatic hemangioma at CT. Precontrast phase (**A**), arterial phase (**B**), portal-venous phase (**C**) and equilibrium phase (**D**). Note the peripheral, globular uptake with centripetal distribution.

http://www.scielo.br/scielo.php?pid=S0100-39842008000200012&script=sci_arttext&tlng=en

Cavernous Hemangioma cont.



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Fatty Infiltration of the Liver

- Description
  - Excessive deposition of triglycerides and other fats in liver cells

Fatty Infiltration of the Liver cont.

- Etiology
  - Appears in association with a number of disorders:
    - Obesity
    - Malnutrition
    - Chemotherapy
    - ETOH abuse
    - Steroid use
    - Parenteral nutrition
    - Cushing syndrome
    - Radiation hepatitis

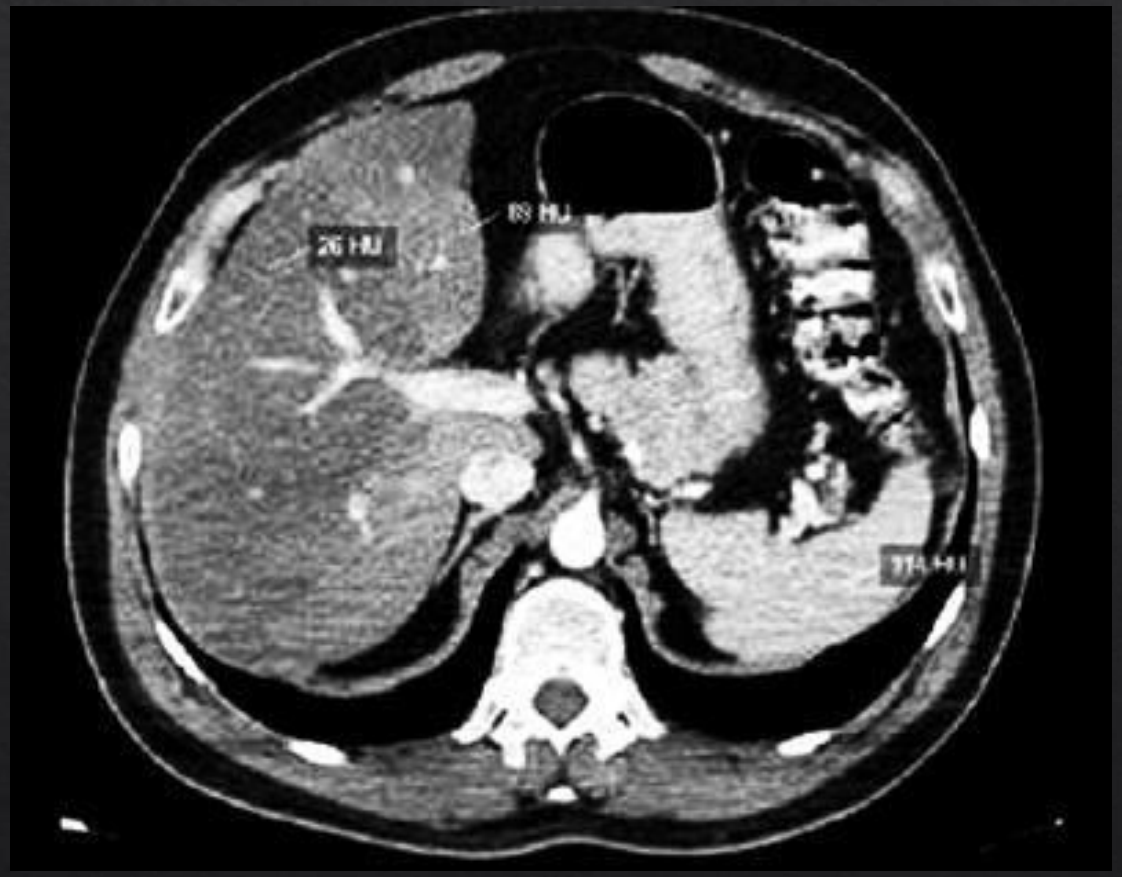
Fatty Infiltration of the Liver cont.

- Epidemiology
  - Commonly associated with alcohol abuse in the US
- Signs / symptoms
  - Usually “silent”
  - Abdominal pain in RUQ, when hepatomegaly occurs

Fatty Infiltration of the Liver cont.

- Imaging characteristics
  - May be focal or diffusely distributed
    - Demonstrate a hypodense attenuation in appearance, as compared to the spleen on non-contrast studies
- Treatment
  - Consists of treating the underlying condition
  - Focus on proper nutrition
- Prognosis
  - Depends on underlying condition

Fatty Infiltration of the Liver cont.



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Hepatic Metastases

- Description
  - Spread of cancer to the liver parenchyma
  - Occur more frequently than primary liver malignancies

Hepatic Metastases cont.

- Etiology
  - Can originate from almost any primary malignancy (most common from GI tract)
  - Other cancers include:
    - Gastric
    - Pancreatic
    - Breast
    - Lung
    - Ovary
    - Kidney

Hepatic Metastases cont.

- Epidemiology
  - Second most common site for metastatic spread (to lung)
- Signs / symptoms
  - Abdominal pain
  - Jaundice
  - Possibly a palpable mass

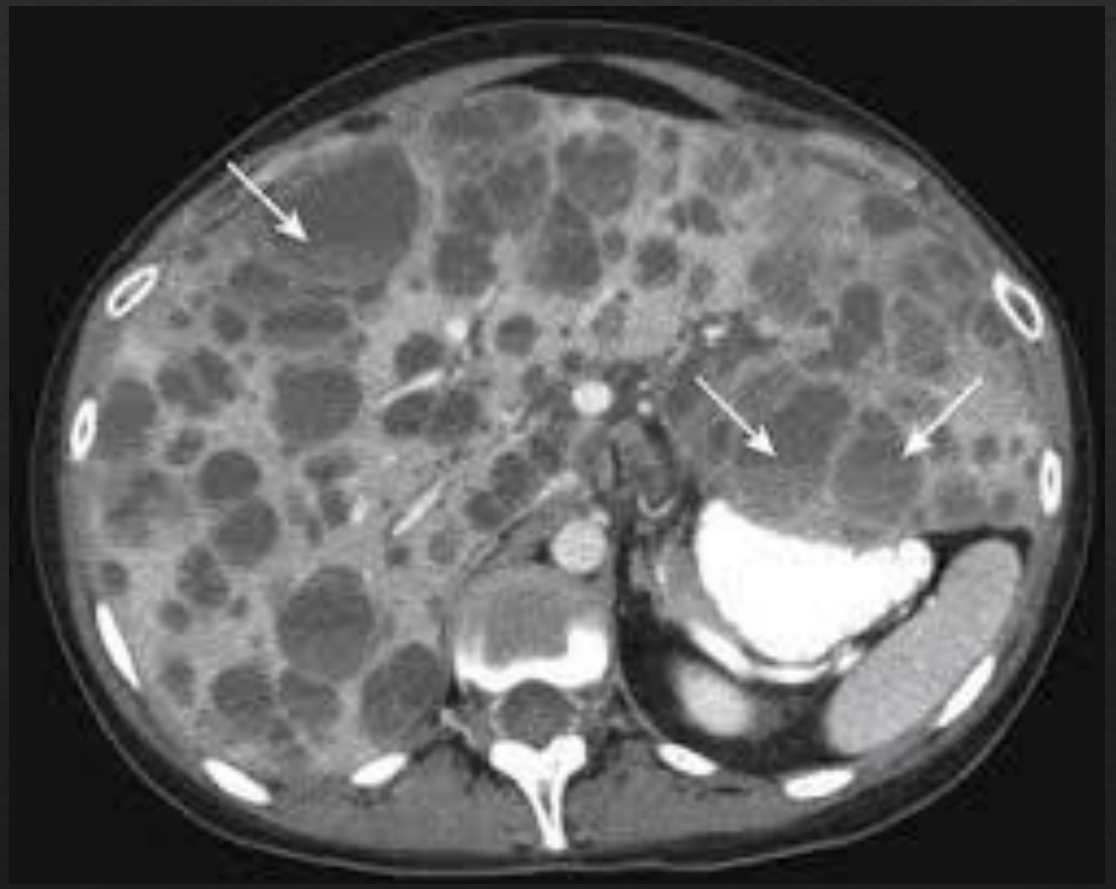
Hepatic Metastases cont.

- Imaging characteristics
  - Low-attenuation (hypodense) solid masses when compared to the liver parenchyma on non-contrast studies
    - Some tumors may enhance with IV contrast
    - Calcification or hemorrhage may be seen within the lesions on non-contrast CT
- Treatment
  - Depends on cancer staging
  - Chemotherapy, with or without conservative surgical resection, if confined to three segments, or less
  - Ablation may be used for palliative pain therapy

Hepatic Metastases cont.

- Prognosis
  - Depends on staging, but usually poor

Hepatic Metastases cont.



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Hepatoma

- Description
  - Also known as hepatocellular carcinoma (HCC)
  - Most common primary malignant liver tumor
  - Accounts for approx. 75% of liver cancers

Hepatoma cont.

- Etiology
  - Risk factors include:
    - Hepatitis B infection
    - Alcohol induced cirrhosis
    - Aflatoxin (mold that grows on rice and peanuts)
    - Contaminated food
    - Anabolic steroids
    - Immunosuppressive drugs

Hepatoma cont.

- Epidemiology
  - 1 – 5 new cases per 100,000 population each year
  - Average age of detection between 50 and 70 years of age
  - Male to female ration 3:1
  - High incidence associated with people from China, Southeast Asia, western and southern Africa, Taiwan and Hong Kong

Hepatoma cont.

- Signs / symptoms
  - RUQ abdominal pain
  - Hepatomegaly
  - Weight loss
  - Nausea / vomiting
  - Palpable mass

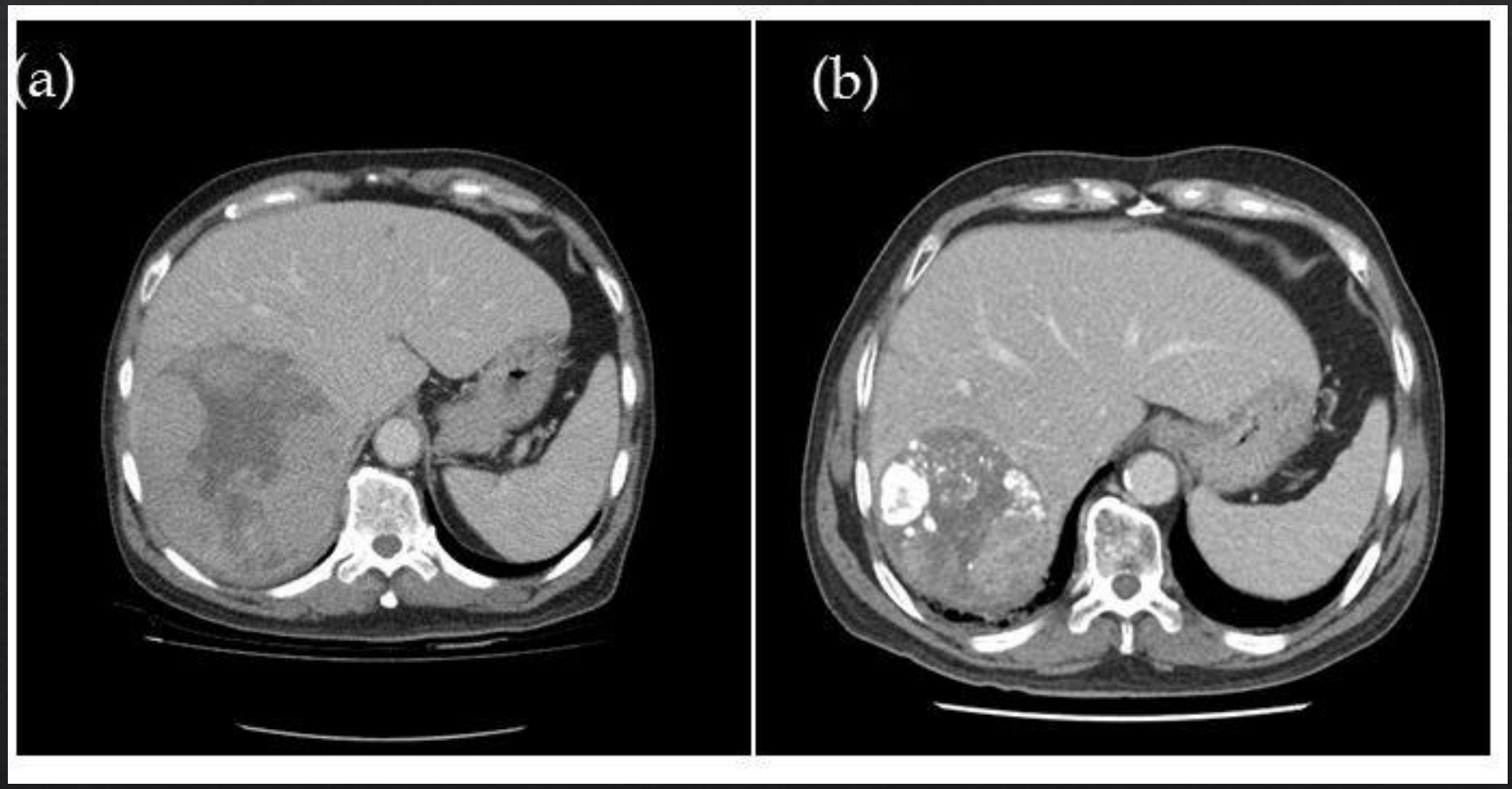
Hepatoma cont.

- Imaging characteristics
  - Hypodense on non-contrast study
    - Variable enhancement on post IV contrast studies
- Treatment
  - Surgical resection, if possible, may improve quality of life
  - Radiation and chemotherapy used to provide palliative care
  - Presence of cirrhosis reduces prognosis

Hepatoma cont.

- Prognosis
  - 85 – 90% of cases not surgical candidates
  - Poor

Hepatoma cont.



http://www.intechopen.com/books/hepatic-surgery/surgical-management-of-primary-hepatocellular-carcinoma

Pathology of the Abdomen

Hepatobiliary

Choledocholithiasis

- Description
  - Calculi or stone in the CBD
  - Usually form in the gallbladder, and migrate
- Etiology
  - Stones consisting of cholesterol are primarily developed
  - Again, migrate from GB to CBD

Choledocholithiasis cont.

- Epidemiology
  - Approx. 10-15% of patients with cholecystitis have stones in the CBD
  - Incidence rate increases with age
  - More frequent in females

Choledocholithiasis cont.

- Signs / symptoms
  - No obstruction – asymptomatic
  - If obstructed:
    - Epigastric pain
    - N/V
    - Jaundice
    - Loss of appetite
    - Pancreatitis, in some cases

Choledocholithiasis cont.

- Imaging characteristics
  - Stones with high attenuation may be seen non-contrast
- Treatment
  - ERCP with sphincterotomy and stone removal
  - Surgery less common
- Prognosis
  - Good, with early treatment

Choledocholithiasis cont.

http://www.kjim.org/journal/view.php?number=17947

Choledocholithiasis cont.

http://images.google.com/imgres?imgurl=http://

Pancreatic Adenocarcinoma

- Description
  - 2nd most common visceral malignancy
  - 5th leading cause of cancer mortality

Pancreatic Adenocarcinoma cont.

- Etiology
  - No known cause
  - Suggestive link to inhalation or absorption of carcinogens found in:
    - Cigarettes
    - Foods high in fat and protein
    - Food additives
    - Industrial chemicals

Pancreatic Adenocarcinoma cont.

- Etiology cont.
  - Possible predisposing factors:
    - Chronic pancreatitis
    - Diabetes mellitus
    - Chronic alcohol abuse

Pancreatic Adenocarcinoma cont.

- Epidemiology
  - Approx. 28,000 new cases annually
  - 26,000 deaths
  - Most common occurrence between ages 40-70
  - Majority of lesions in the head of the pancreas

Pancreatic Adenocarcinoma cont.

- Signs / symptoms
  - Weight loss
  - Abdominal pain
  - Jaundice

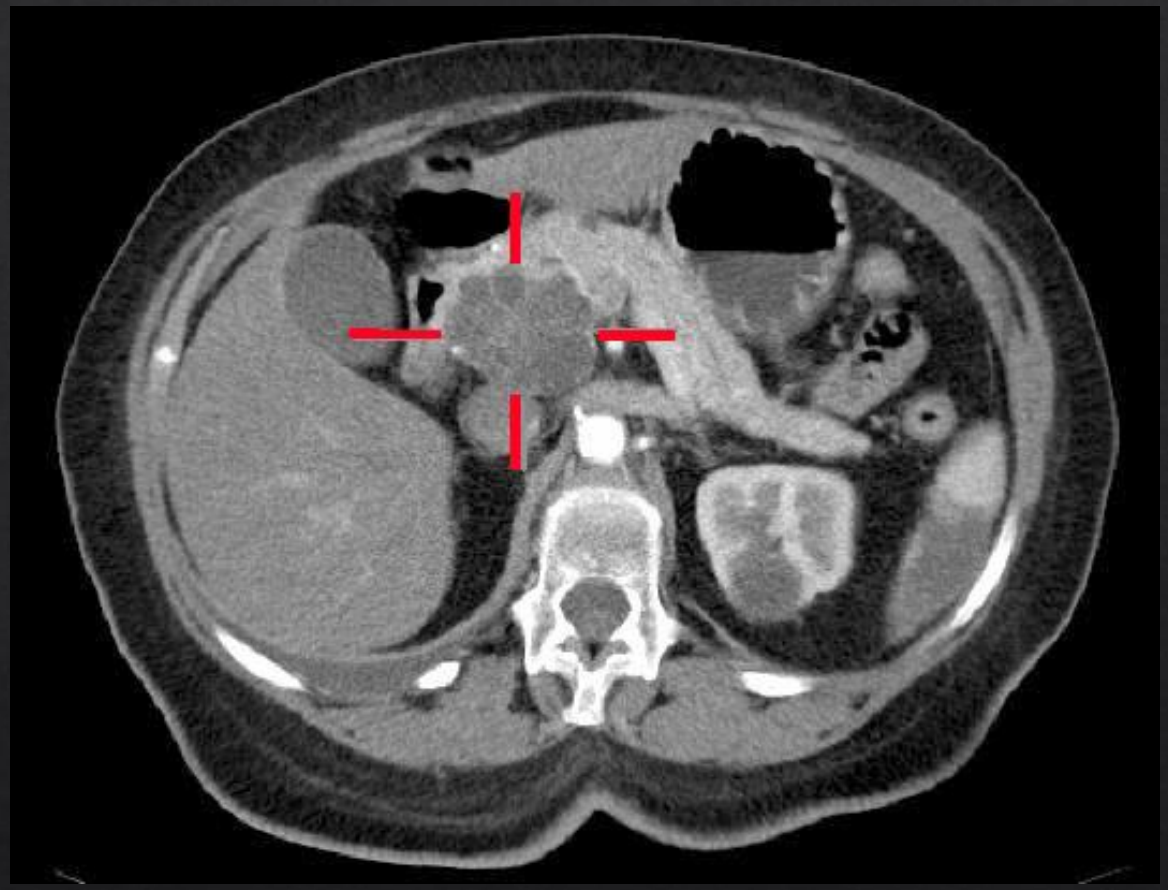
Pancreatic Adenocarcinoma cont.

- Imaging characteristics
  - Contrast CT is the preferred modality
  - Mass in head of pancreas (66%)
  - Dilated bile ducts, pancreatic duct secondary to obstruction of CBD by pancreatic head tumor
  - Invasion / encasement of vascular structures
  - Liver mets
  - Enlarged lymph nodes

Pancreatic Adenocarcinoma cont.

- Treatment
  - Approx. 80% of patients are ineligible for surgical resection, although surgery offers best hope
- Prognosis
  - Poor
  - Average survival rate is approx. 17 months

Pancreatic Adenocarcinoma cont.



http://teachmesurgery.com/hpb/pancreas/pancreatic-cancer/

Pancreatic Pseudocyst

- Description
  - Composed of collection of cellular debris, old blood and pancreatic fluid that has become encapsulated in a fibrous sac
- Etiology
  - May result from pancreatic inflammation or trauma

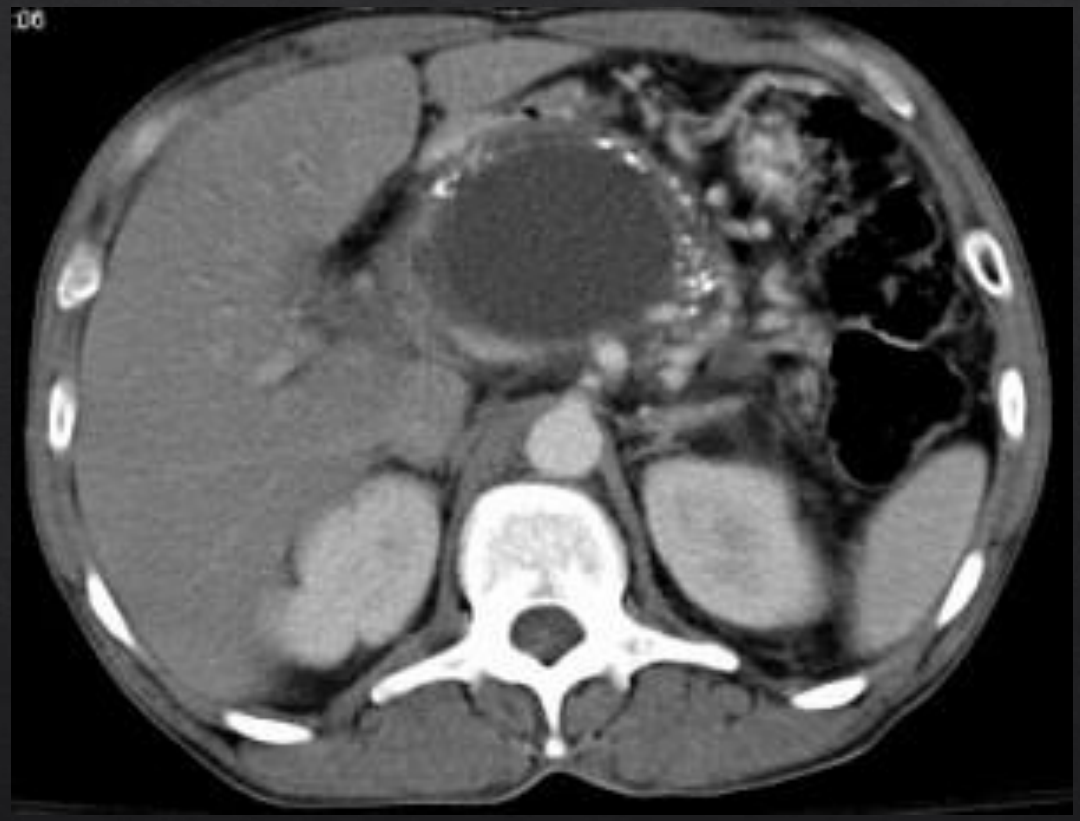
Pancreatic Pseudocyst cont.

- Epidemiology
  - Potential candidates are those who have had a recent bout of acute pancreatitis, or trauma
- Signs / symptoms
  - Abdominal pain
  - N/V
  - Loss of appetite
  - Jaundice
  - Palpable mass

Pancreatic Pseudocyst cont.

- Imaging characteristics
  - Appears as a well-defined, round, low dense walled capsule with near water attenuation
- Treatment
  - May resolve spontaneously
  - Drainage may be required, either CT guided or surgically
- Prognosis
  - Depends on severity / extent
  - Serious cases include a high morbidity and mortality rate

Pancreatic Pseudocyst cont.



http://insidesurgery.com/2010/12/pancreatic-pseudocyst-pathophysiology-treatment/

Pathology of the Abdomen

Genitourinary

Polycystic Kidney Disease

- Description
  - Inherited disorder
  - Composed of fluid-filled cysts of differing sizes
  - Enlarged kidneys with compressed parenchyma

Polycystic Kidney Disease cont.

- Etiology
  - Hereditary disorder
- Epidemiology
  - Female / Male equally affected
  - Usually diagnosed 30 – 40 years of age
  - Accounts for 5 10 percent of patients with end-stage renal failure

Polycystic Kidney Disease cont.

- Signs / symptoms
  - Hypertension
  - Hematuria
  - Abdominal pain
  - Hepatomegaly

Polycystic Kidney Disease cont.

- Imaging characteristics
  - Multiple hypodense masses involving one or both kidneys
  - Kidneys are generally enalrged
- Treatment
  - Incurable
  - Dialysis in end-stage renal disease
- Prognosis
  - Progressive with variable outcome
  - 70 percent in end-stage renal disease by age 65

Polycystic Kidney Disease cont.

http://cjasn.asnjournals.org/content/1/4/754/F1.expansion

Angiomyolipoma

- Description
  - Fairly common benign tumors
  - Composed of fat, blood vessels and smooth muscle
  - Belong to a classification of benign tumors of disorganized tissues, dependent upon location:
    - Hamartoma – found inside an organ
    - Choristoma – not normally found in an org

Angiomyolipoma cont.

- Etiology
  - Composed of mature cell overgrowth normally present in an affected area (blood vessels, muscle tissue, fat)
- Epidemiology
  - Female more common than male
  - 40 – 60 years of age
  - Approx. 20% of patients have multiple, bilateral masses, and are associated with tuberous sclerosis

Angiomyolipoma cont.

- Signs / symptoms
  - Abd pain
  - Hematuria
  - Hemorrhage

Angiomyolipoma cont.

- Imaging characteristics
  - The detection of fat in the mass assist with confirming the DX
- Treatment
  - Surgical resection if hemorrhage occurs, and is life-threatening
  - Angioembolization possible Tx
- Prognosis
  - Mortality secondary to hemorrhage of the tumor
  - Benign tumors

Angiomyolipoma cont.

http://posterng.netkey.at/esr/viewing/index.php?module=viewing_poster&task=viewsection&pi=101333&ti=311627&searchkey=

Renal Artery Stenosis

- Description
  - Partial or complete blockage of the renal artery
  - Most common cause of correctable hypertension
- Etiology
  - Occurs as a result of atherosclerosis or fibromuscular dysplasia (FMD)

Renal Artery Stenosis cont.

- Epidemiology
  - HTN from stenosis occurs in less than 5% of all patients with HTN
  - Atherosclerosis occurs mainly in the elderly
  - FMD more commonly seen in young females than males
- Signs/ symptoms
  - Present with HTN

Renal Artery Stenosis cont.

- Imaging characteristics
  - Atherosclerotic narrowing involves the proximal renal artery
  - FMD causes a beading appearance ("string of pearls") – involves the distal 2/3rd of the renal artery

Renal Artery Stenosis cont.

- Treatment
  - Angioplasty, stenting, surgical revascularization
- Prognosis
  - Good with early diagnosis / treatment

Renal Artery Stenosis cont.

http://www.revespcardiol.org/en/abdominal-aortic-aneurysm-and-renovascular/articulo/13109900/

Renal Cell Carcinoma

- Description
  - Most common malignancy affecting the kidney
- Etiology
  - Cause unknown
  - Known to arise from the proximal convoluted tubule

Renal Cell Carcinoma cont.

- Epidemiology
  - Approx. 30,000 new cases diagnosed annually, with about 12,000 deaths
  - Male affected 2:1 0ver female
  - Average age of occurrence between age 50-60

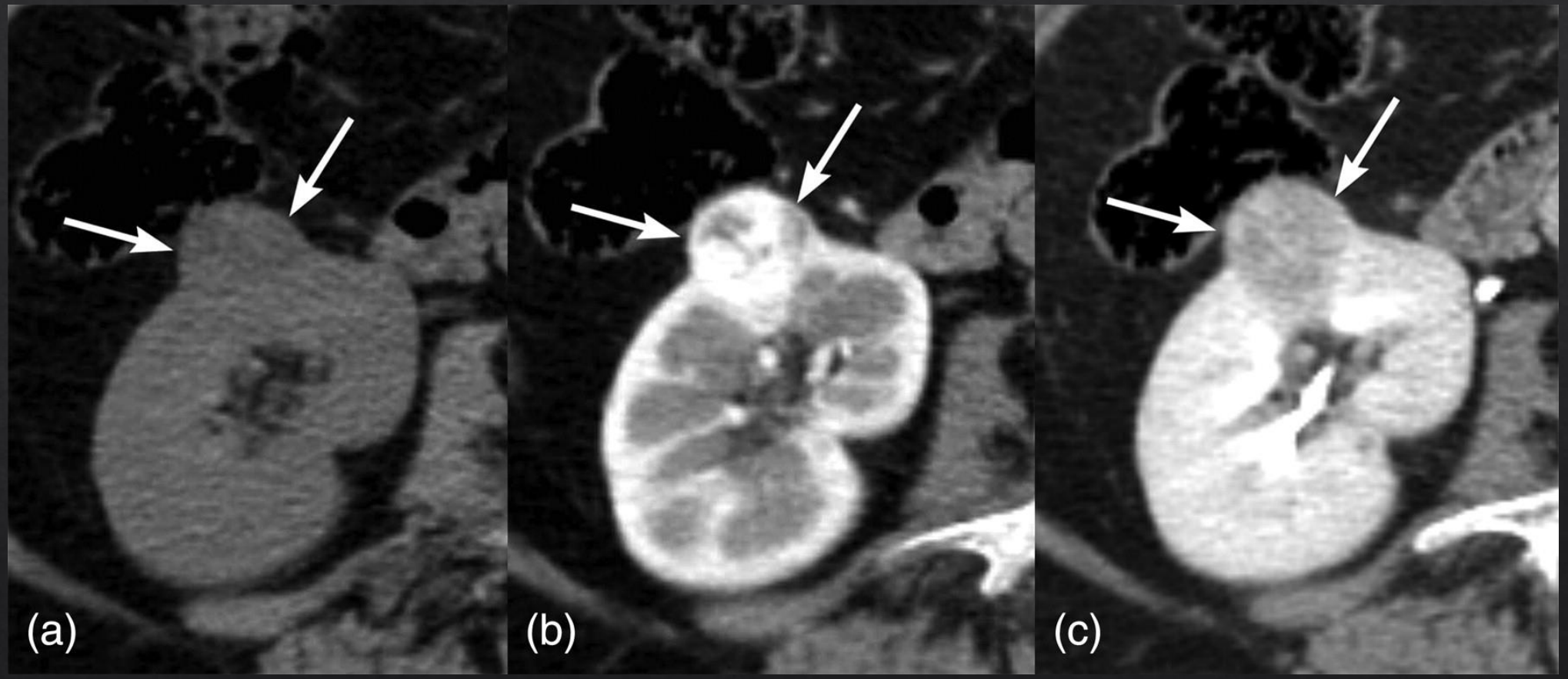
Renal Cell Carcinoma cont.

- Signs / symptoms
  - May present with:
    - Solid renal mass
    - Hematuria
    - Abdominal mass
    - Anemia
    - Flank pain
    - HTN weight loss

Renal Cell Carcinoma cont.

- Imaging characteristics
  - Hypodense or isodense mass on non-contrast studies
    - Enhancing mass of post IV contrast studies
- Treatment
  - Surgical removal of kidney, if confined to single kidney
  - Rad and chemo Tx of little value
- Prognosis
  - Depends on staging at time of diagnosis

Renal Cell Carcinoma cont.



https://www.google.com/search?q=ct+craniopharyngioma&espv=2&biw=1137&bih=886&source=lnms&tbm=isch&sa=X&ved=0ahUKEwj33aznqODQAhWKv1QKHZjSBw4Q_AUIBigB#tbm=isch&q=ct+scan+renal+cell+carcinoma&imgrc=wShi8FGezzQ8cM%3A

Wilm Tumor

- Description
  - Most common renal cancer affecting the kidney in children
- Etiology
  - Sporadic
  - Only 5 percent inherited

Wilm Tumor cont.

- Epidemiology
  - About 87 percent of all renal cancers are Wilm tumors
  - 80 percent between the ages of one and five years of age
  - Bilateral involvement in 10 percent of cases

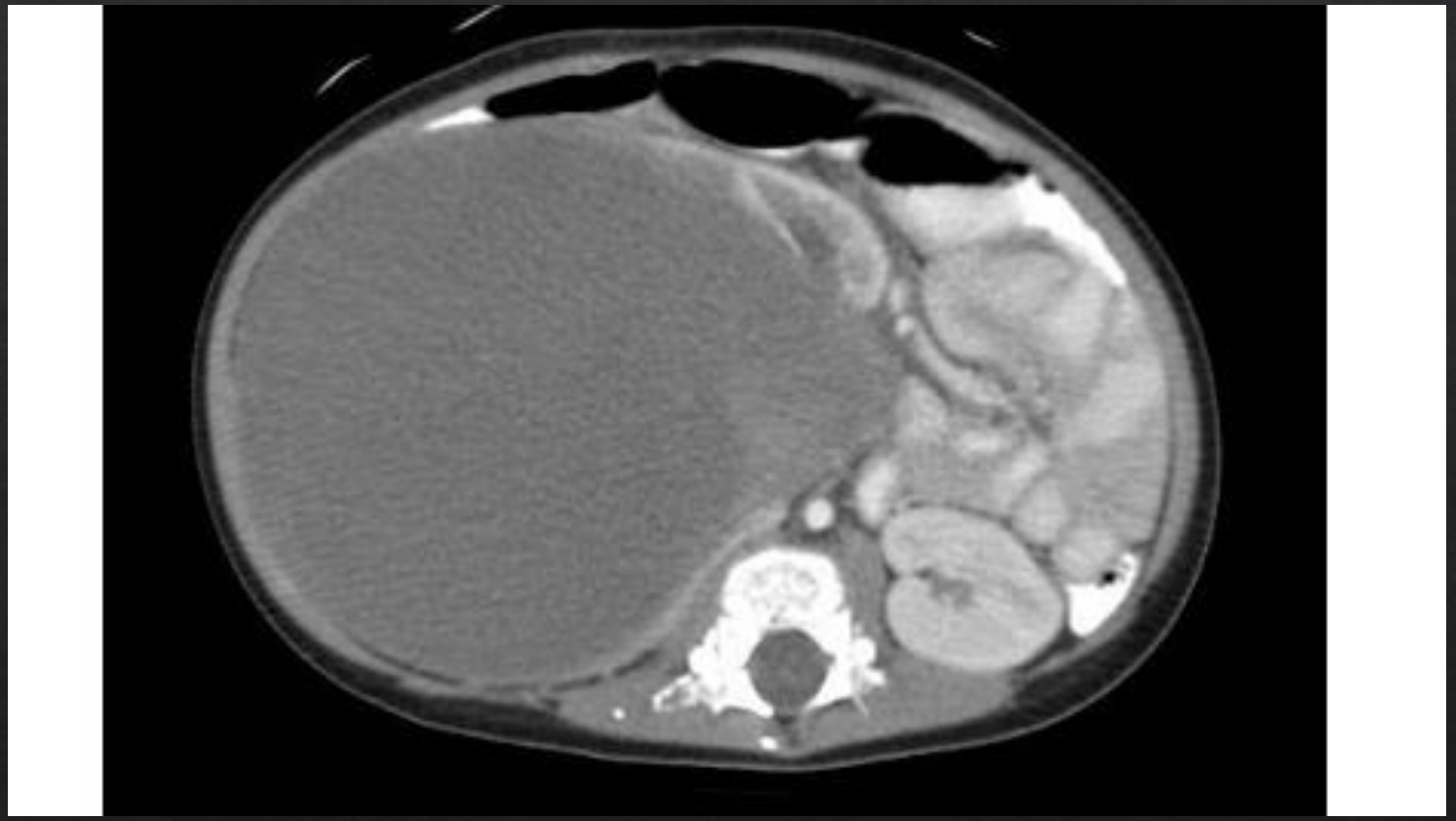
Wilm Tumor cont.

- Signs / symptoms
  - May present with:
    - Hematuria
    - Abdominal mass
    - Anemia
    - Flank pain
    - Hypertension

Wilm Tumor cont.

- Imaging characteristics
  - Large, spherical, intra-renal mass with well-defined rim
  - Calcification seen in 5 – 10 percent of non-contrast cases
- Treatment
  - Surgical removal of kidney, if confined to single kidney
  - Surgery not an option for bilateral disease
- Prognosis
  - With appropriate therapy and early detection – good outcome

Wilm Tumor cont.



http://emedicine.medscape.com/article/989398-overview

Pathology of the Abdomen

Pelvis

Uterine Leiomyoma (Uterine Fibroids)

- Description
  - Also known as myomas, fibroids and fibromyomas
  - Most common benign uterine tumor
- Etiology
  - Cause unknown
  - Estrogen-dependent tumor
  - May increase in size during pregnancy
  - Usually decreases in size post menopause

Uterine Leiomyoma (Uterine Fibroids) cont.

- Epidemiology
  - Occur in 20-30% of premenopausal women
  - Black women affected 3:1 over white women
- Signs / symptoms
  - May experience pressure on the surrounding organs, pain and abnormal menstruation

Uterine Leiomyoma (Uterine Fibroids) cont.

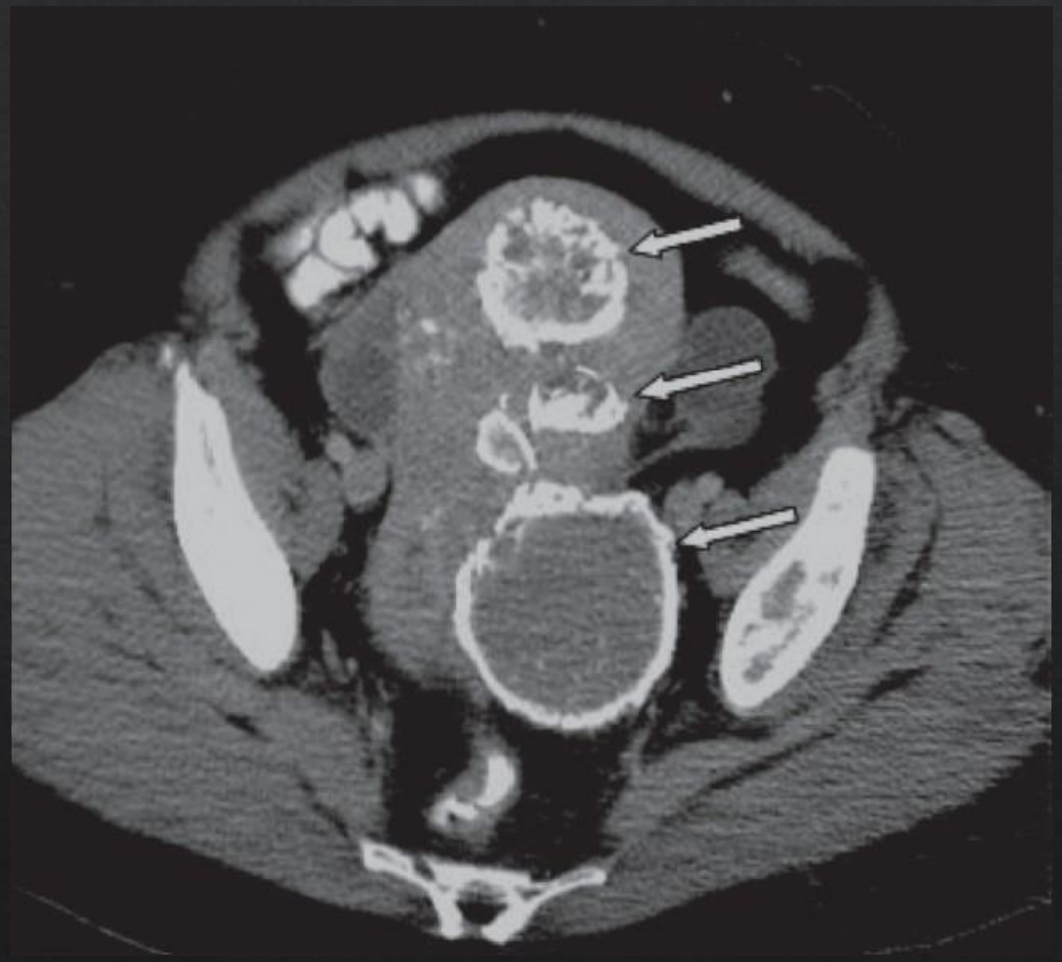
- Imaging characteristics
  - US is the best modality!

- CT
  - Homogeneous soft tissue density similar to normal uterus
  - Calcification may occur in 10%, especially post menopausal

Uterine Leiomyoma (Uterine Fibroids) cont.

- Treatment
  - Myomectomy in the young reproductive age group.
  - Uterine artery embolization (UAE) may also be used
  - Hysterectomy for older and severe cases
- Prognosis
  - Good (benign tumors)

Uterine Leiomyoma (Uterine Fibroids) cont.



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Ovarian Cyst

- Description
  - Benign, well-circumscribed, round, water-density lesions with a cyst wall that is difficult to see
- Etiology
  - Generally related to hormonal dysfunction
  - May be stimulated by other disease processes

Ovarian Cyst cont.

- Epidemiology
  - Occurs more frequently in menarcheal women
- Signs / symptoms
  - Usually asymptomatic, but may cause pelvic pain

Ovarian Cyst cont.

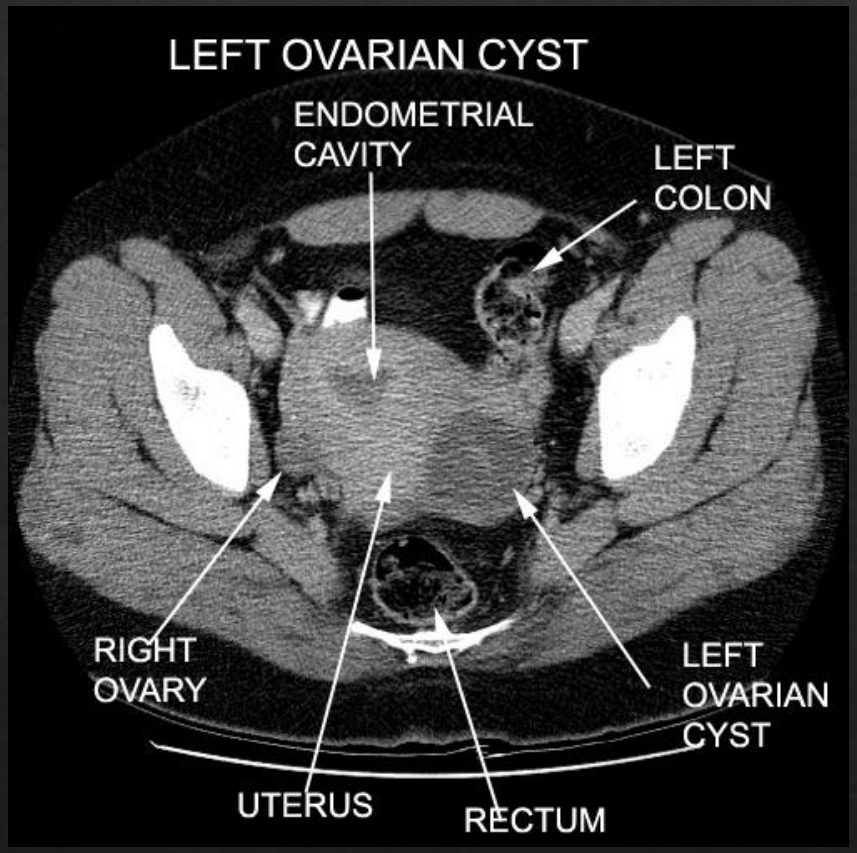
- Imaging characteristics
  - US is the best modality!

- CT
  - Contrast-enhanced CT demonstrates a cystic mass in the adnexa

Ovarian Cyst cont.

- Treatment
  - Surgery may be required for cysts larger than 5cm
- Prognosis
  - Good (benign lesion)

Ovarian Cyst cont.



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Pathology of the Musculoskeletal System

Shoulder

Hill – Sachs Defect

- Description
  - An impaction (compression) fracture of the posterosuperior and lateral aspects of the humeral head
  - Usually associated with anterior dislocation of the shoulder

Hill – Sachs Defect cont.

- Etiology
  - Occurs when the shoulder is traumatically abducted and externally rotated, compressing the posterior aspect of the humeral head against the glenoid rim
  - The force may produce an impaction fracture of the humeral head
- Epidemiology
  - Occur in approx. 60% of the population diagnosed with an anterior shoulder dislocation

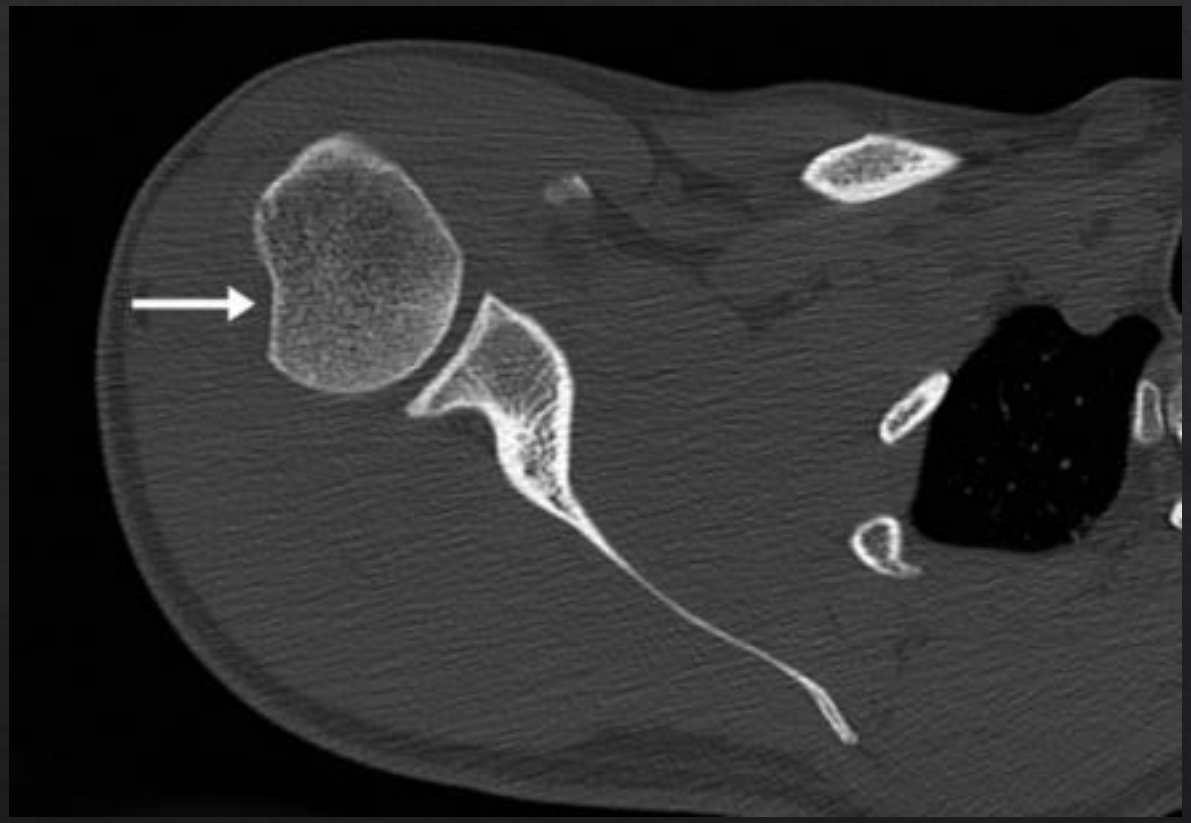
Hill – Sachs Defect cont.

- Signs / symptoms
  - Pain
  - Stiffness
  - Shoulder instability
  - Avascular necrosis
  - Posttraumatic myositis ossificans

Hill – Sachs Defect cont.

- Imaging characteristics (CT)
  - Reveals compression fracture to the posterolateral aspect of the humeral head
- Treatment
  - Surgical intervention
- Prognosis
  - Results vary dependant upon circumstances
  - Patient encourages to resume normal use

Hill – Sachs Defect cont.



http://www.boneandjoint.org.uk/multimedia/details/85586

Musculoskeletal Pathology

Hand and Wrist

Ganglion Cyst

- Description
  - Small (1-2cm) benign cyst seen around a joint capsule or tendon sheath
  - Commonly located around the joints of the wrist

Ganglion Cyst cont.

- Etiology
  - No known cause
  - Suspected cause – coalescence of small cysts formed as a result of degeneration of particular connective tissue
- Epidemiology
  - Usually present between ages 20-40
  - Slight female predominance

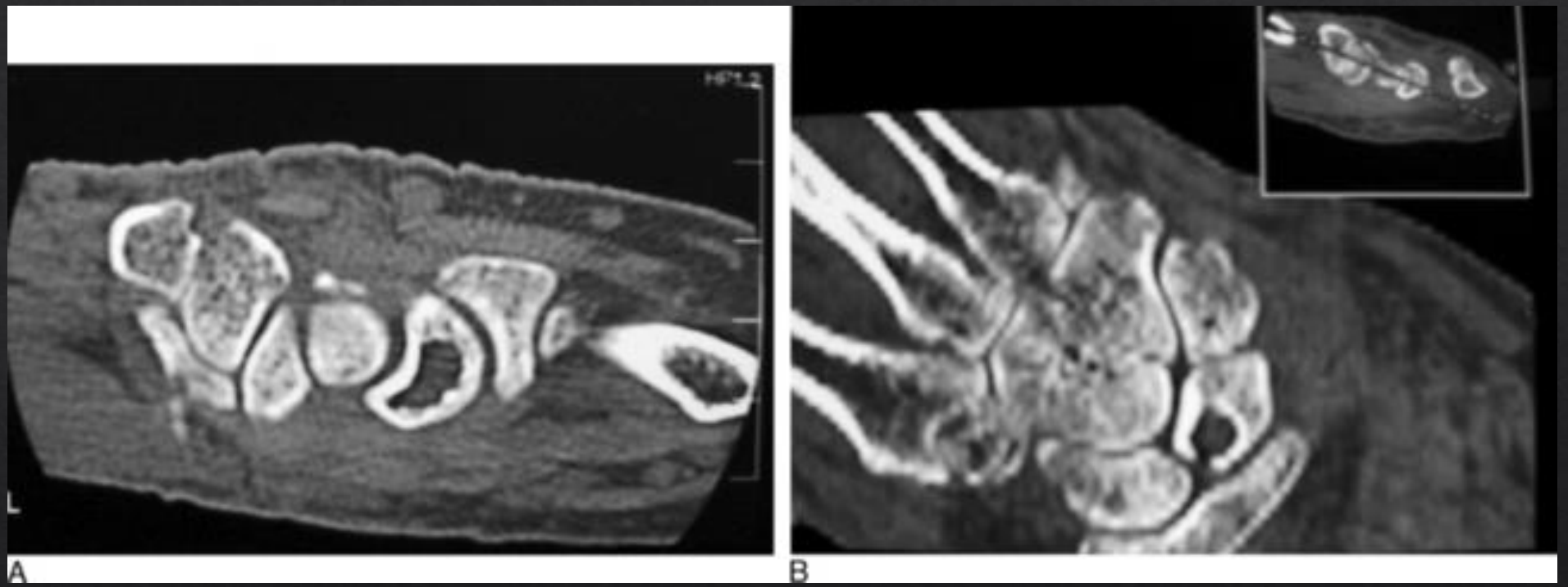
Ganglion Cyst cont.

- Signs / symptoms
  - Usually asymptomatic
  - Ganglions present in the carpal tunnel may cause median nerve compression

Ganglion Cyst cont.

- Imaging characteristics
  - Round, low density mass with fluid attenuation values
- Treatment
  - Surgical excision
- Prognosis
  - Good, benign lesion

Ganglion Cyst cont.



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Unicameral Bone Cyst

- Description
  - Sometimes called a simple bone cyst
  - May present as a single-chambered cyst, or multi-chambered cyst with a “bubbly” appearance
- Etiology
  - Unknown

Unicameral Bone Cyst cont.

- Epidemiology
  - Represent 3-5% of primary bone tumors
  - 80% occur between ages 3 and 14
  - 90 % of these cases occur in the:
    - Proximal humerus
    - Proximal femur
    - Proximal tibia
  - Male > female incidence 3:1

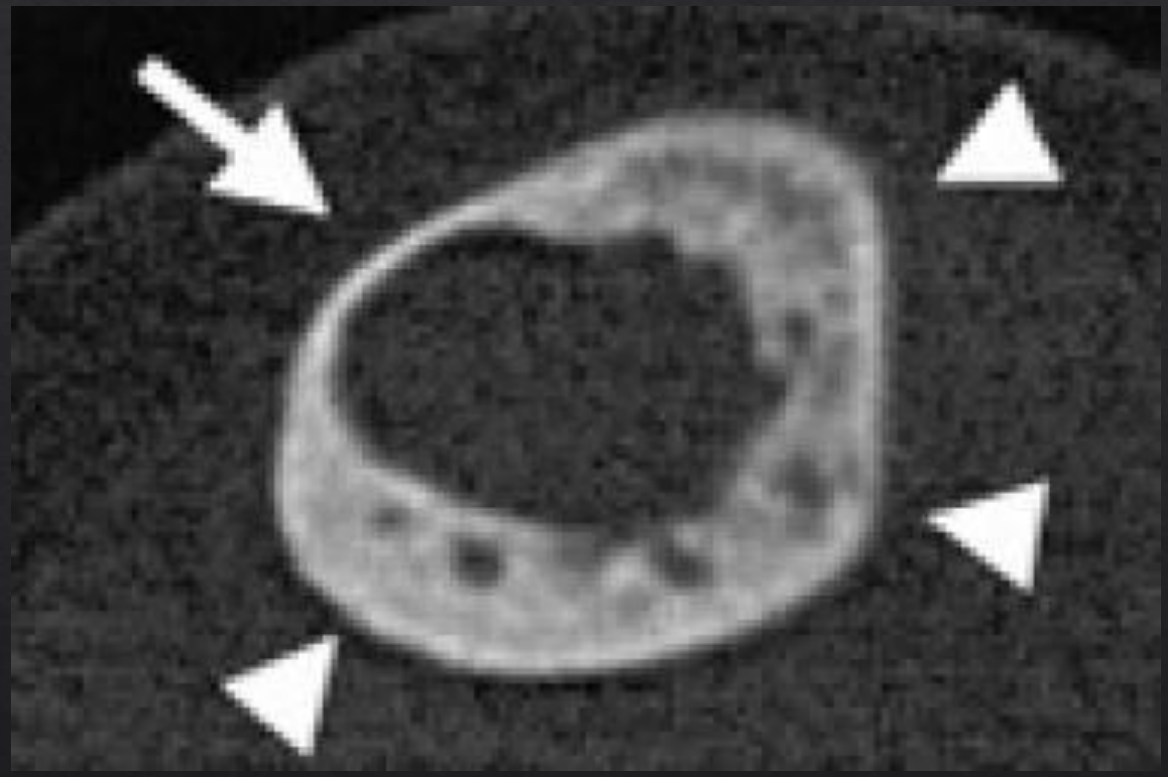
Unicameral Bone Cyst cont.

- Signs / symptoms
  - Usually asymptomatic, unless fracture occurs
  - 67% present with pathologic fracture
  - Pain and loss of function seen with fracture

Unicameral Bone Cyst cont.

- Imaging characteristics
  - Fluid-filled cyst appears hypodense
- Treatment
  - Surgical intervention
- Prognosis
  - Good

Unicameral Bone Cyst cont.



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Unicameral Bone Cyst cont.

http://download.imaging.consult.com/ic/images/S1933033206710540/gr5-midi.jpg

Bibliography

Grey, Michael and Ailinani, Jagan, CT & MRI Pathology – A Pocket Atlas, 2nd Edition McGraw Hill Medical, 2012.

All text material referenced from this textbook

Thank you for your kind attention!