

Oncologic Imaging

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GOALS OF PRESENTATION

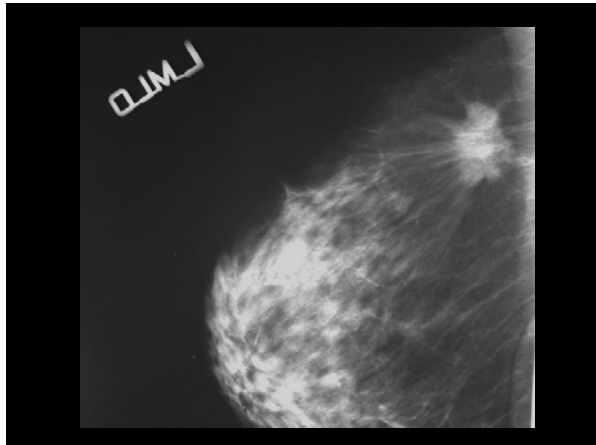
- Familiarize participant with Pathology commonly seen in Oncology patients using CT
- Investigate other imaging modalities useful in Oncological Dx
- Discuss practical issues in radiological imaging

OVERVIEW

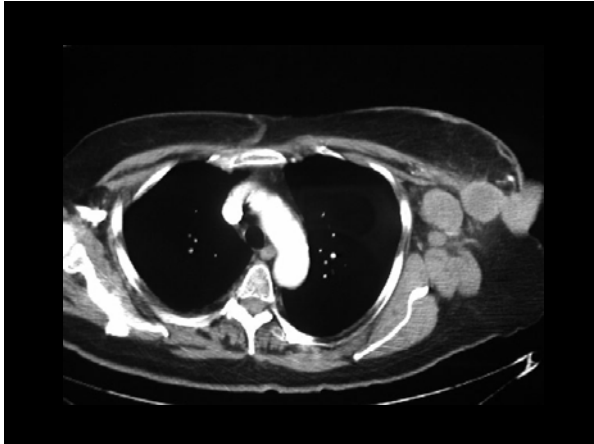
- Anatomy most readily displayed in CT modality
- MR to supplement
- Occasionally US/ plain film/ mammography

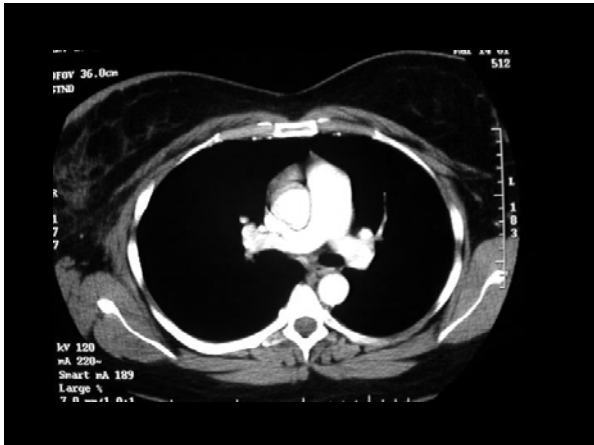
BREAST CA

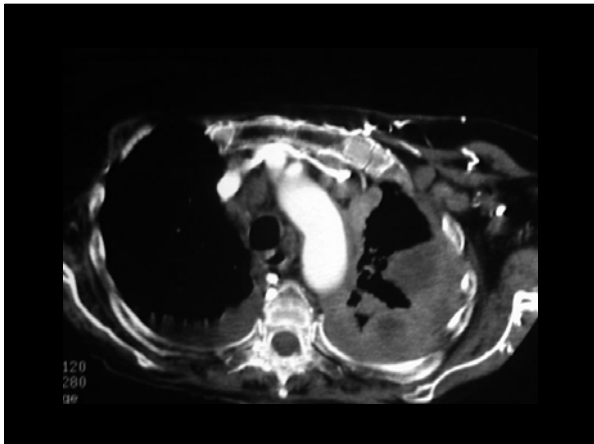
- CT shows advanced disease, mammography and MR for local
- Axillary, int mamm LN seen on CT
- Post RT changes of lung, bones, soft tissue
 - skin thickening, pulm fibrosis, bone sclerosis
- recurrence can be local - focal mass in axilla or chest wall

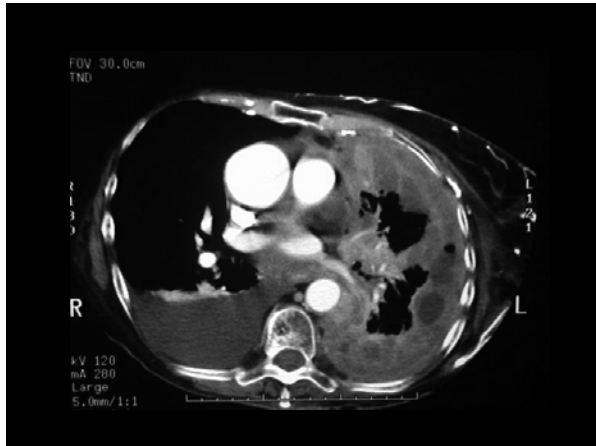




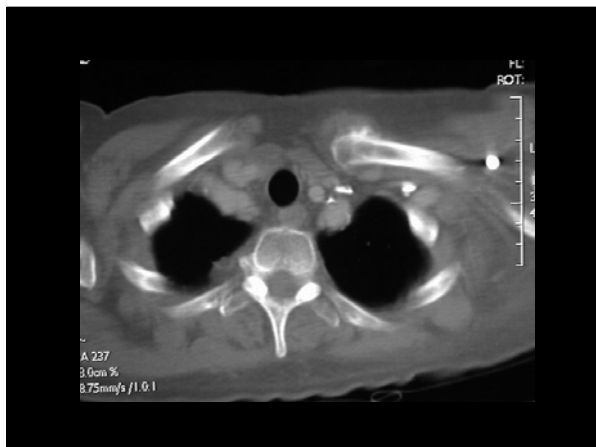


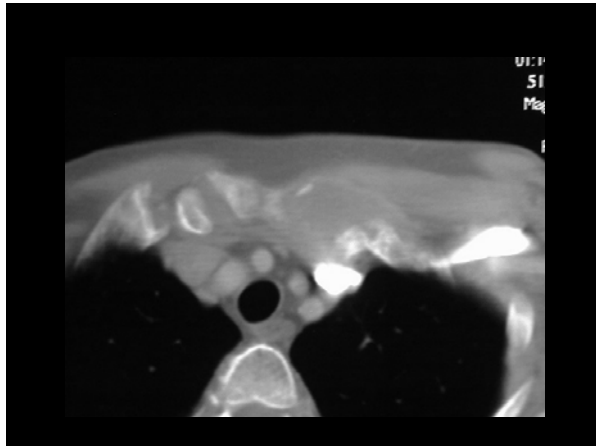




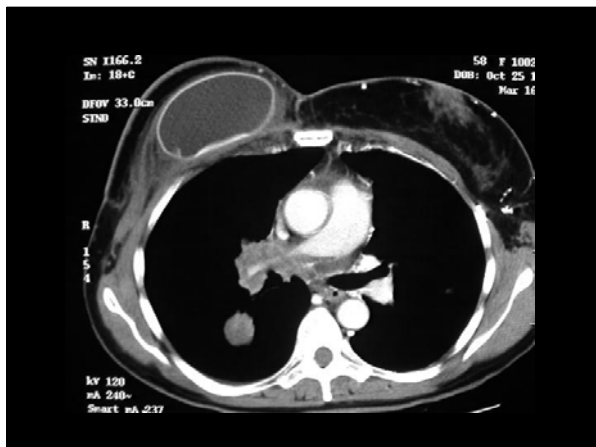


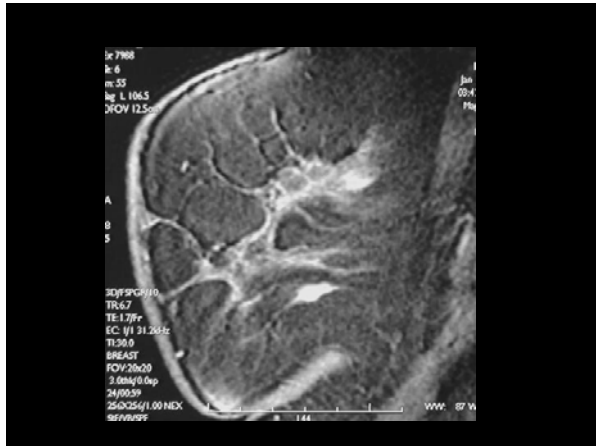


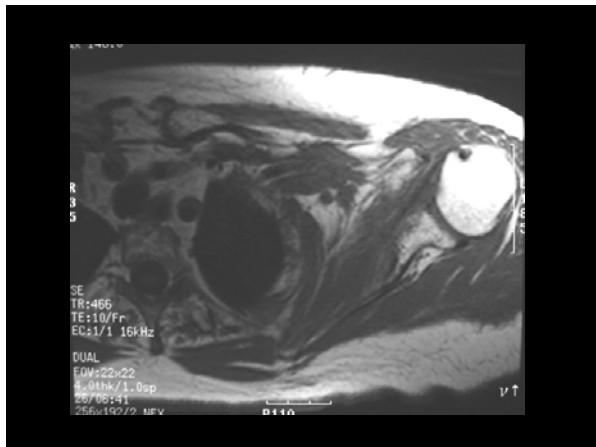


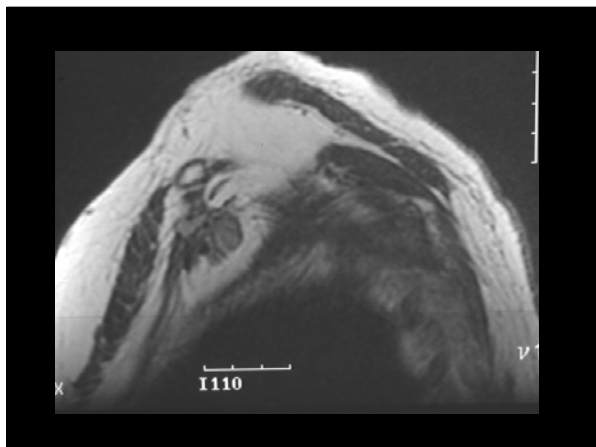












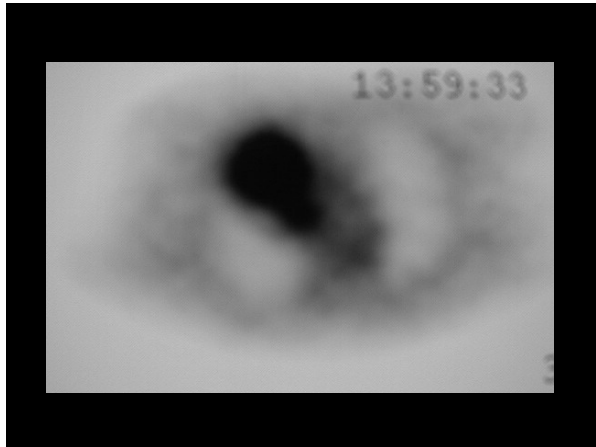
BRONCHOGENIC CA

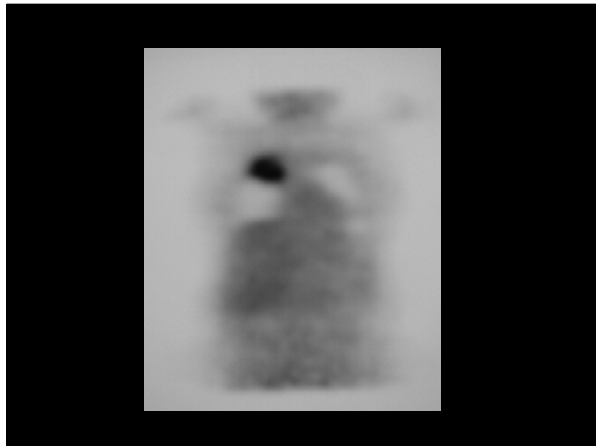
- CT modality of choice
- 60% are central- hilar mass, pneumonia
- 40% are peripheral- spiculated, cavitate
- Evaluate nodes for staging >1-1.5cm significant

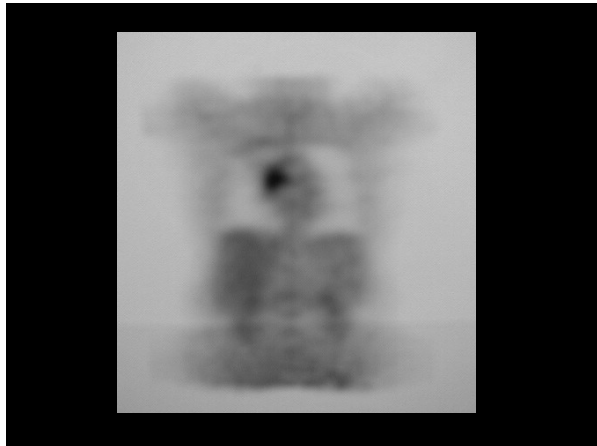


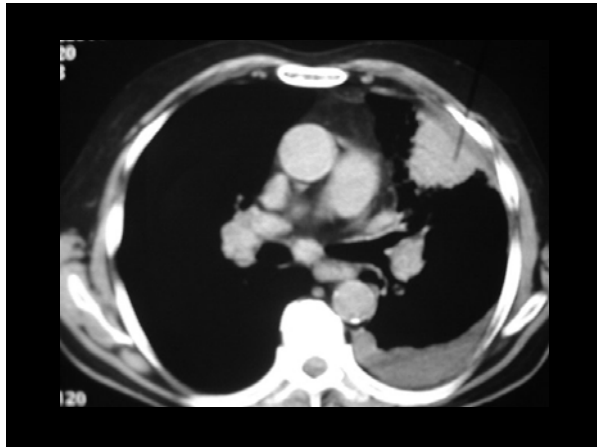


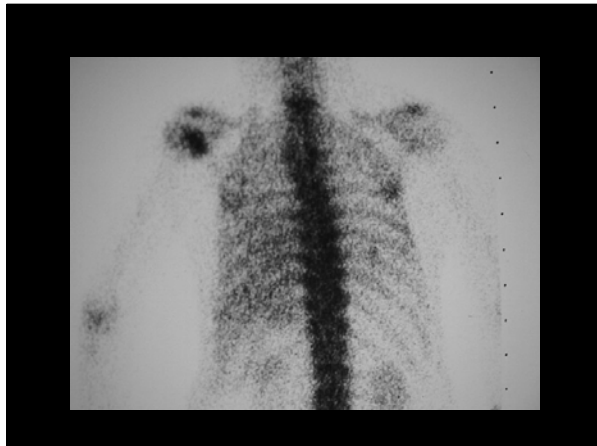




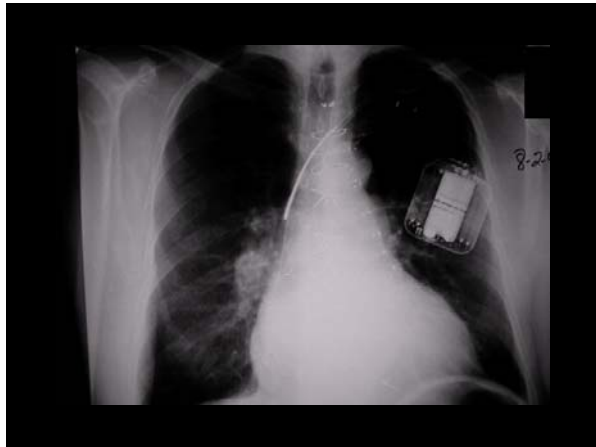


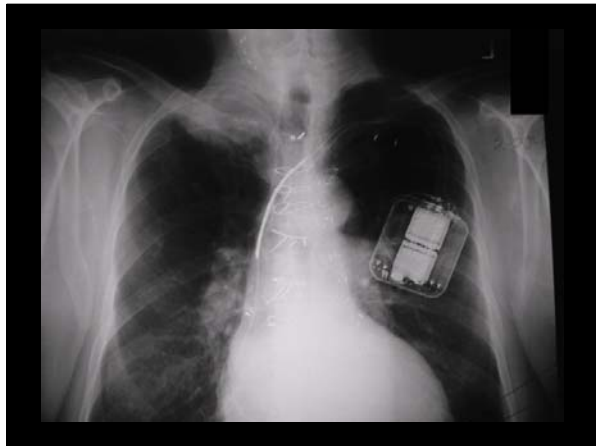










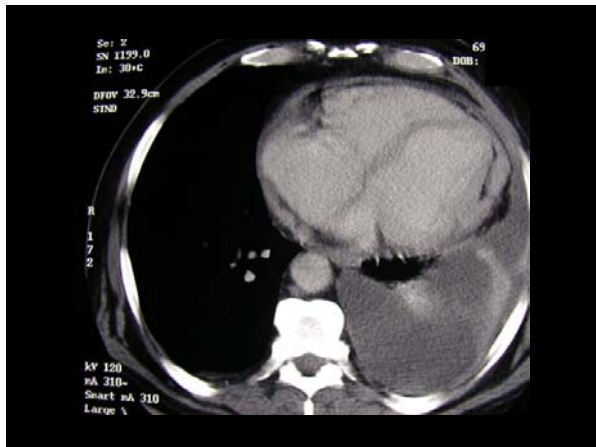




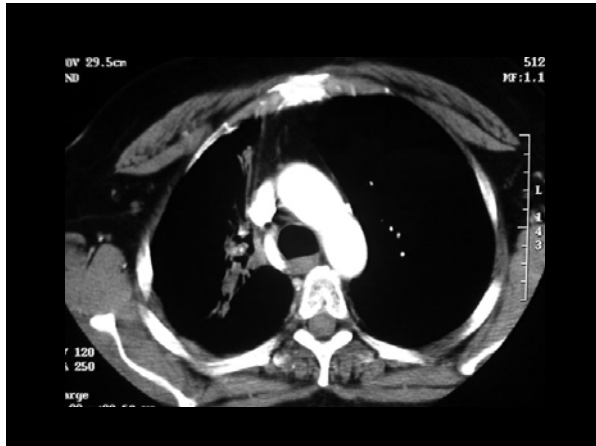


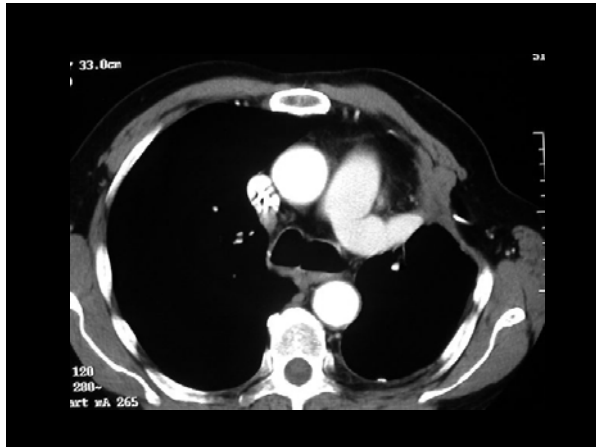




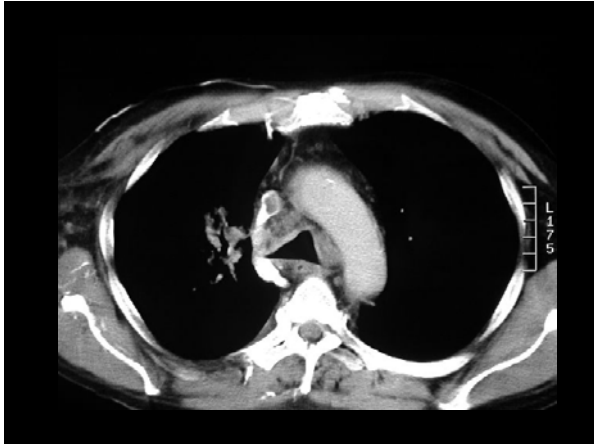


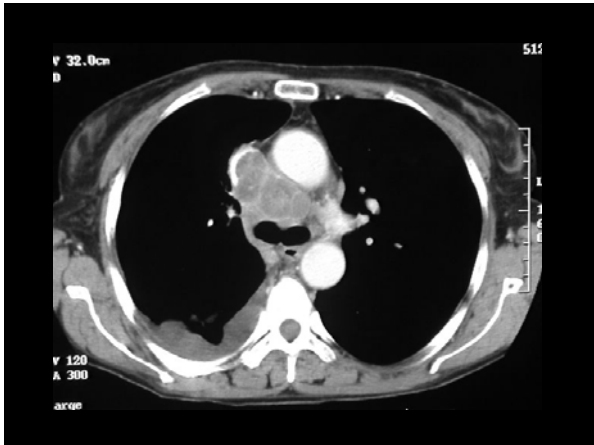


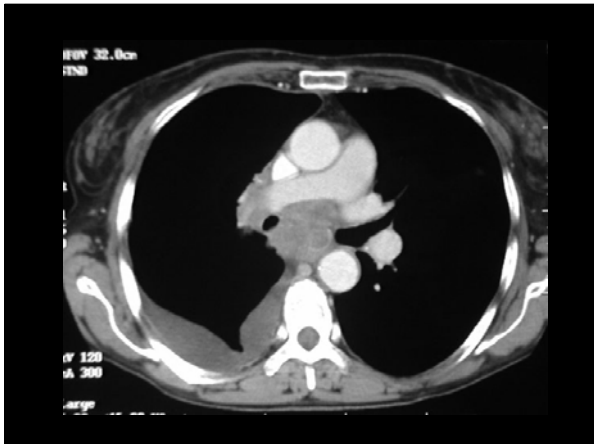


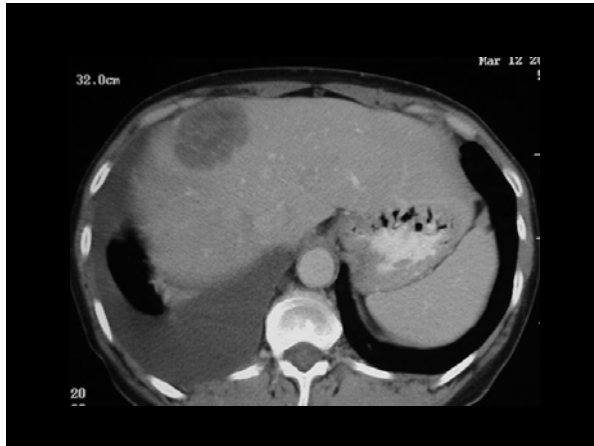












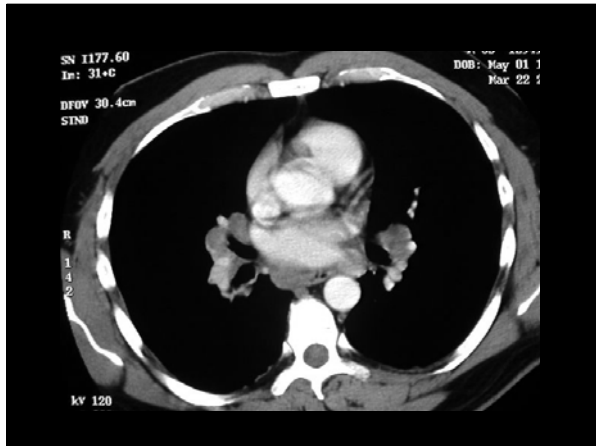
LYMPHOMA

- CT modality of choice
- Mediastinal lymphadenopathy common
- CT helpful in Hodgkin's - determines stage and treatment
- CT good for follow-up in both
- Can affect lungs less commonly













HEPATOCELLULAR CARCINOMA

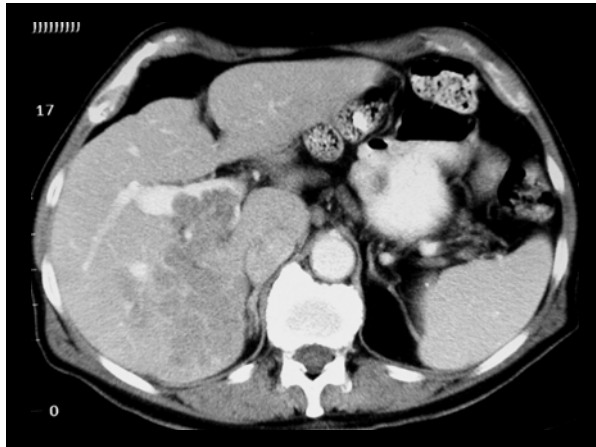
- More common in Asia, Africa
- Usually due to EtOH in US
- Can be mass, nodular or diffuse
- Non-necrotic areas enhance, necrotic areas lower density
- Can invade portal/hepatic vein











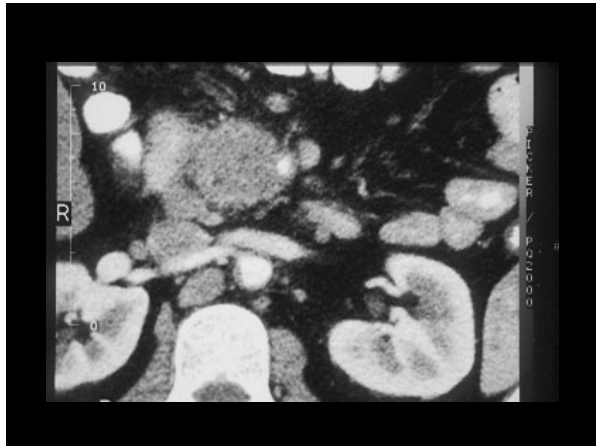


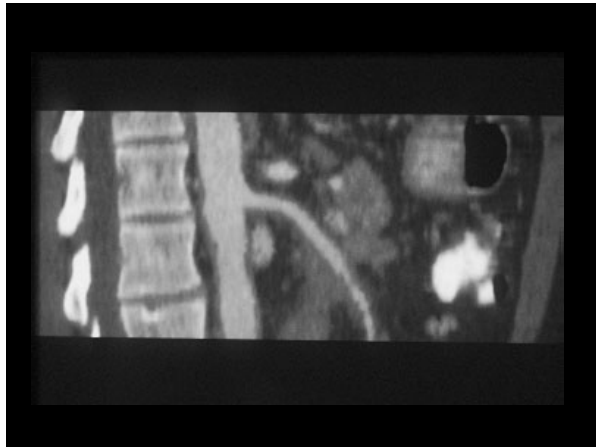


PANCREATIC CANCER

- Advanced at time of Dx
- Poor prognosis
- 65% in pancreatic head
- Findings include mass, hypodensity, dilated duct, biliary obstruction, local invasion of vessels





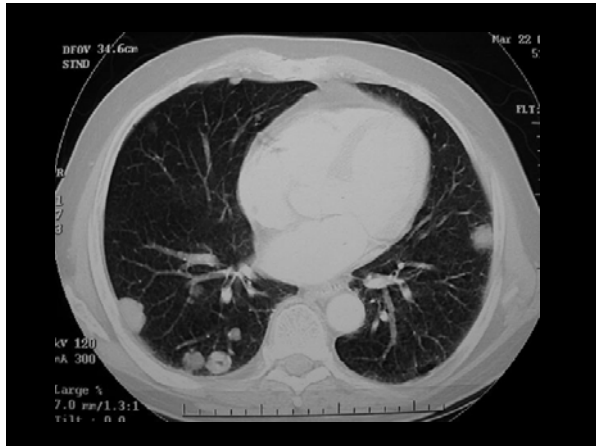


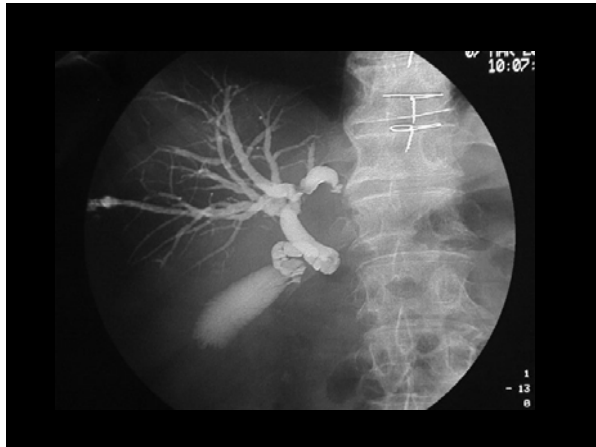


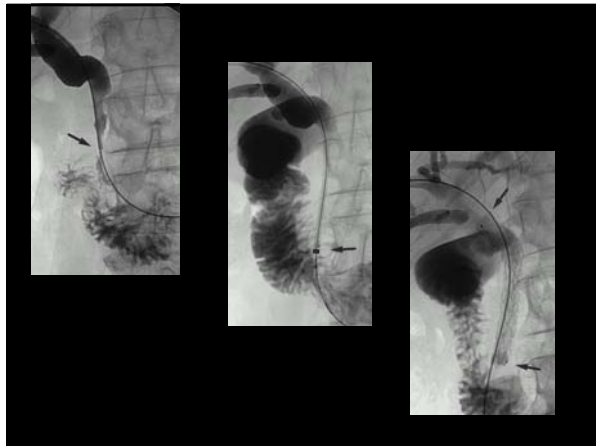


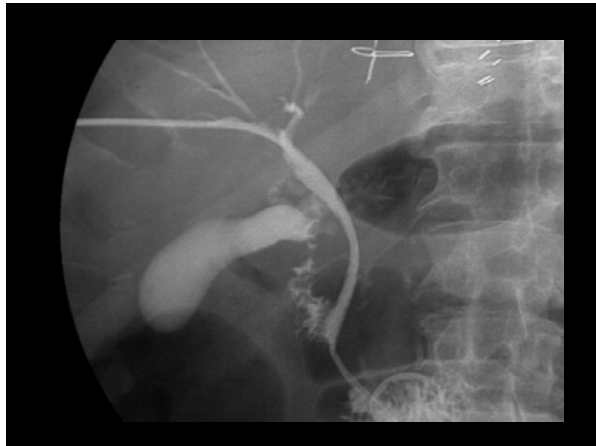












LYMPHOMA

- CT modality of choice
- CT good for follow-up in both
- With or without splenomegaly
- Follows vessels









RENAL CELL CARCINOMA

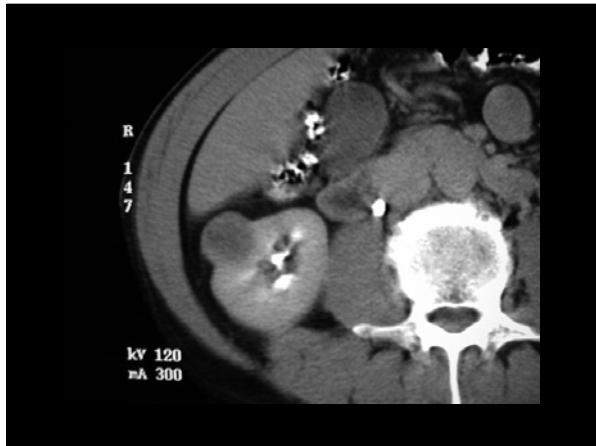
- Common, can present as painless hematuria
- CT for Dx and staging
- Findings
 - pre - hypo to hyperdense
 - post - most enhance, but less than kidney
 - invasion of renal v, IVC, nodes





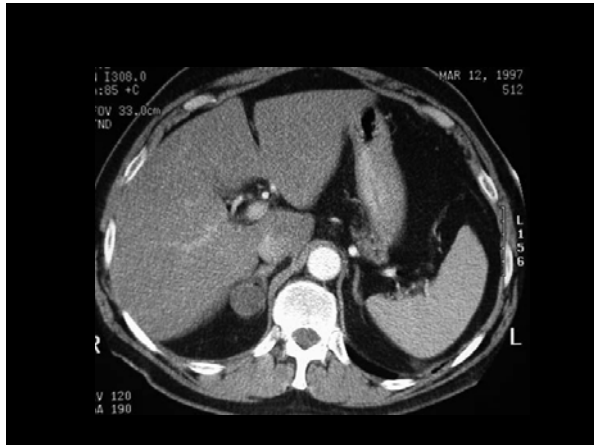






ADRENAL GLANDS

- Adenomas
 - unilateral, round, low density, 2-5 cm
 - most not functional
- Metastases
 - >5 cm, higher density, bilateral
 - lung most common
- Carcinoma -rare

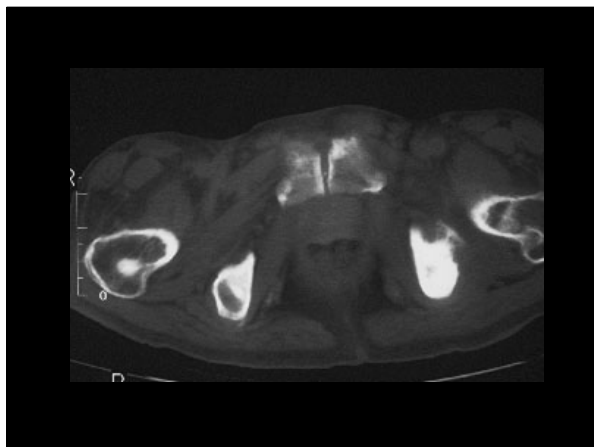


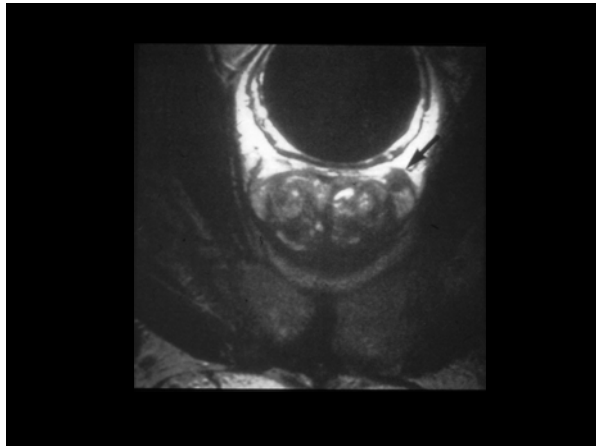


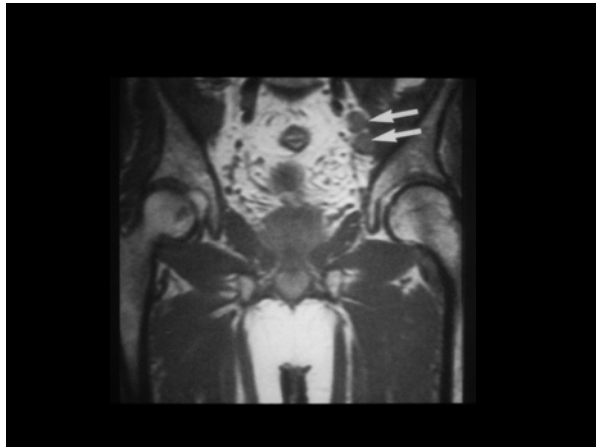
PROSTATE CARCINOMA

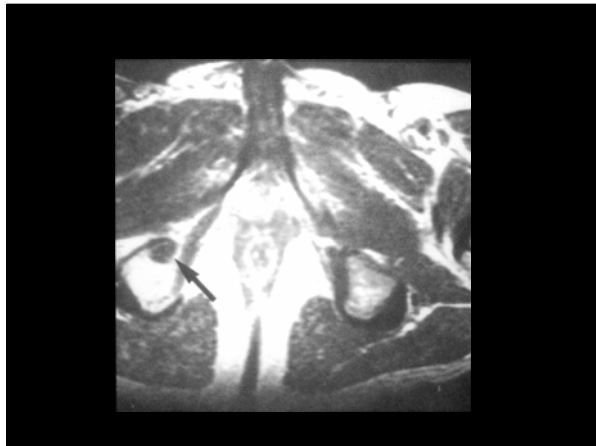
- CT planning very useful for better targeting
- CT predicts local extent 65%, 70% for lymph nodes
- Prostate usually enlarged, but can be NL
- Can invade bladder base, seminal vesicles, rectum

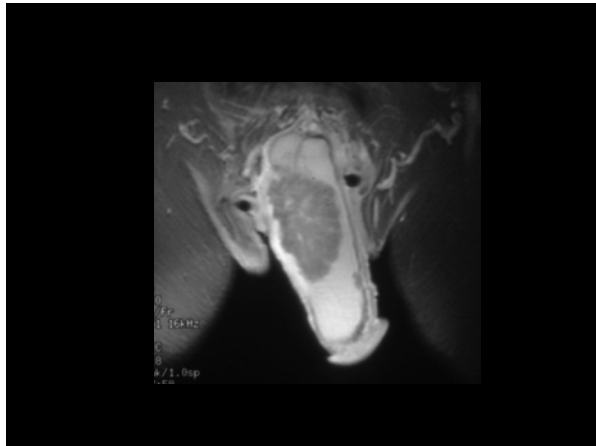










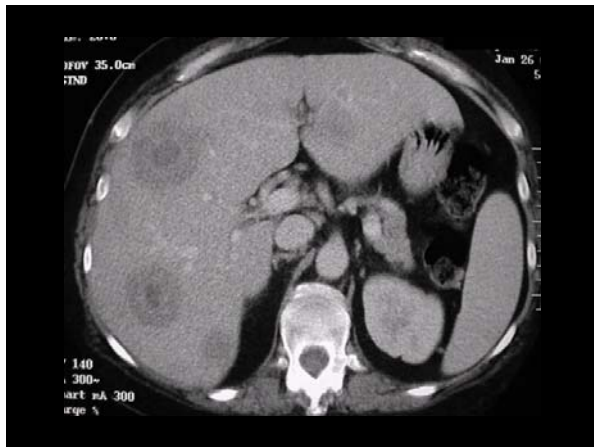


CERVICAL CARCINOMA

- Most common gyne ca in world
- 5 yr survival rate 71%, 10% for distant spread
- Findings
 - soft tissue mass lower uterus
 - nodes
 - local invasion







BONE DISEASE

- Useful for evaluation of mets in prostate CA
- Pathologic fracture
 - metastatic disease destroys bone, non-traumatic fx
 - dx'd on plain films, but CT and MR helpful
- Primary bone tumors in the pelvis



