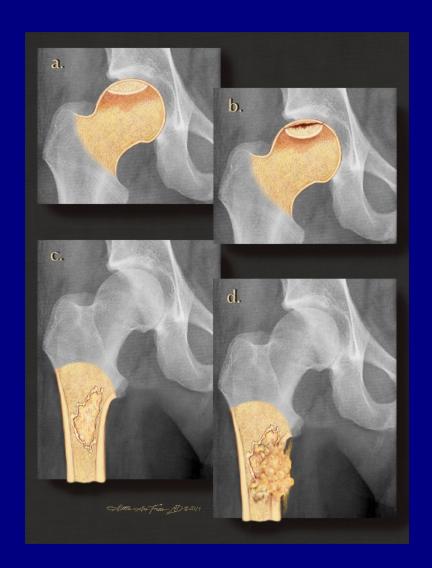


Best Cases of the AIRP

Feb-March, 2015



Musculoskeletal Best Case

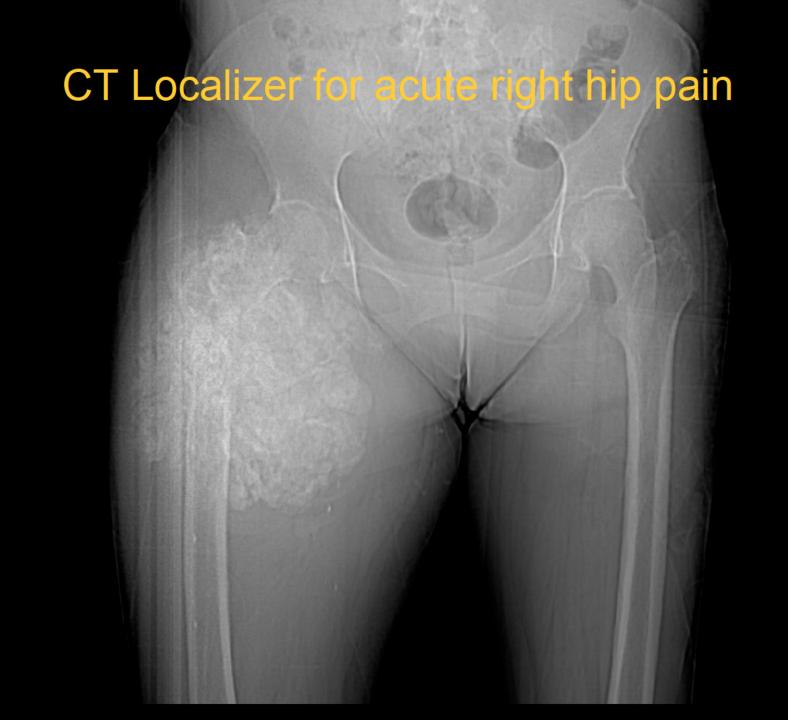


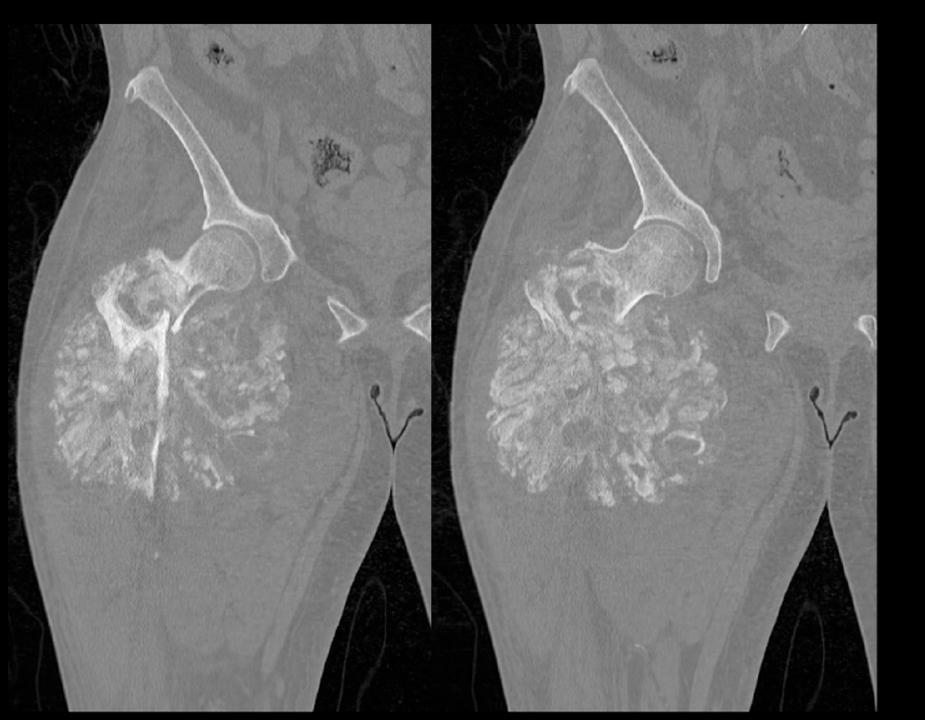


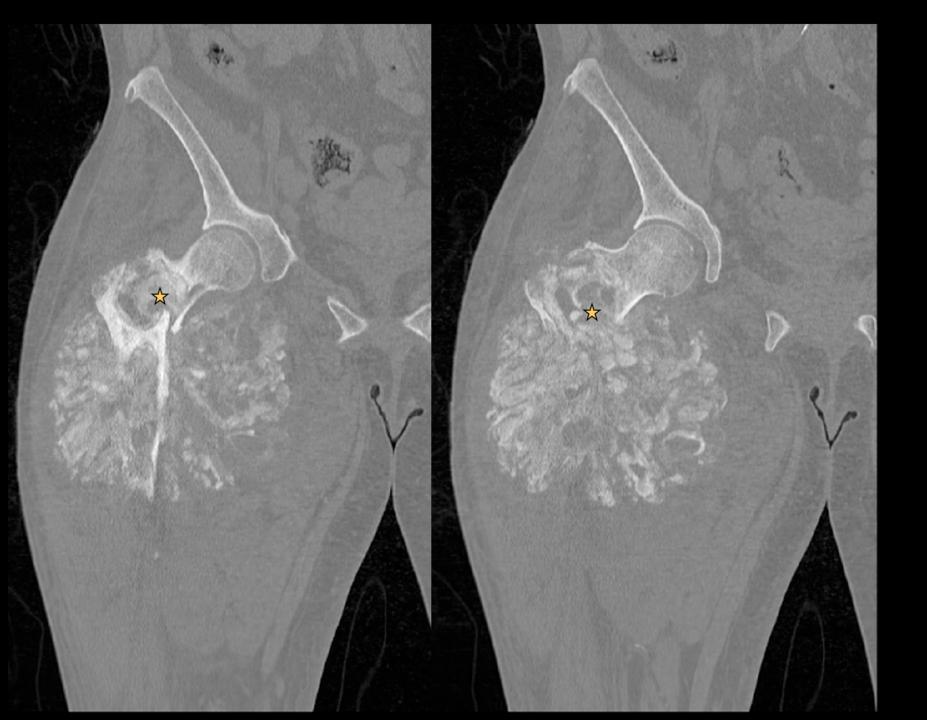
44 year old female with history of ESRD on hemodialysis presenting with right hip pain.

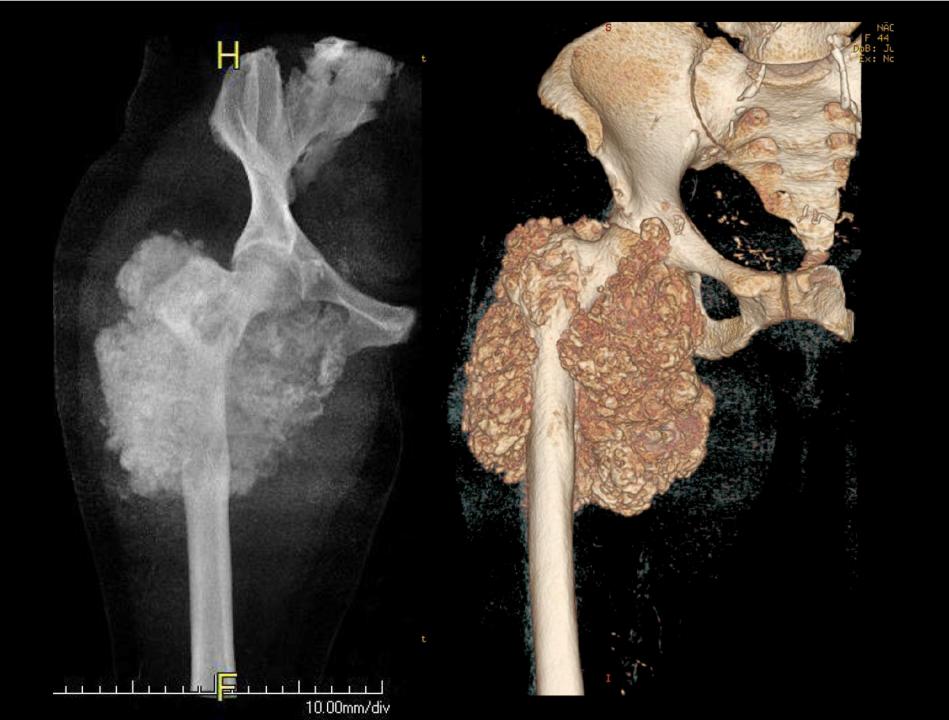


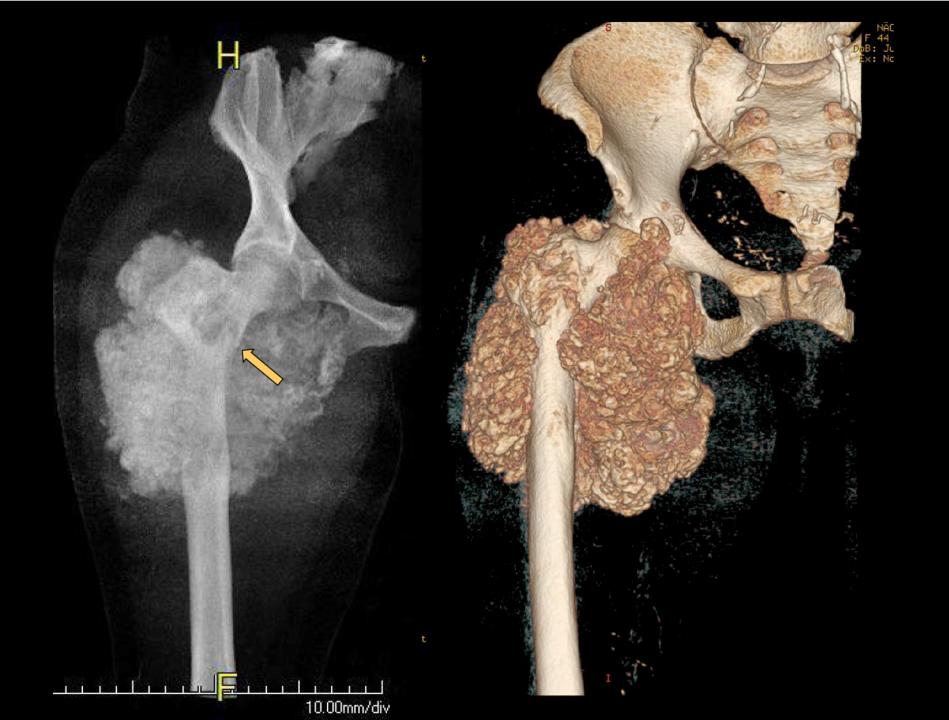
Prior Films

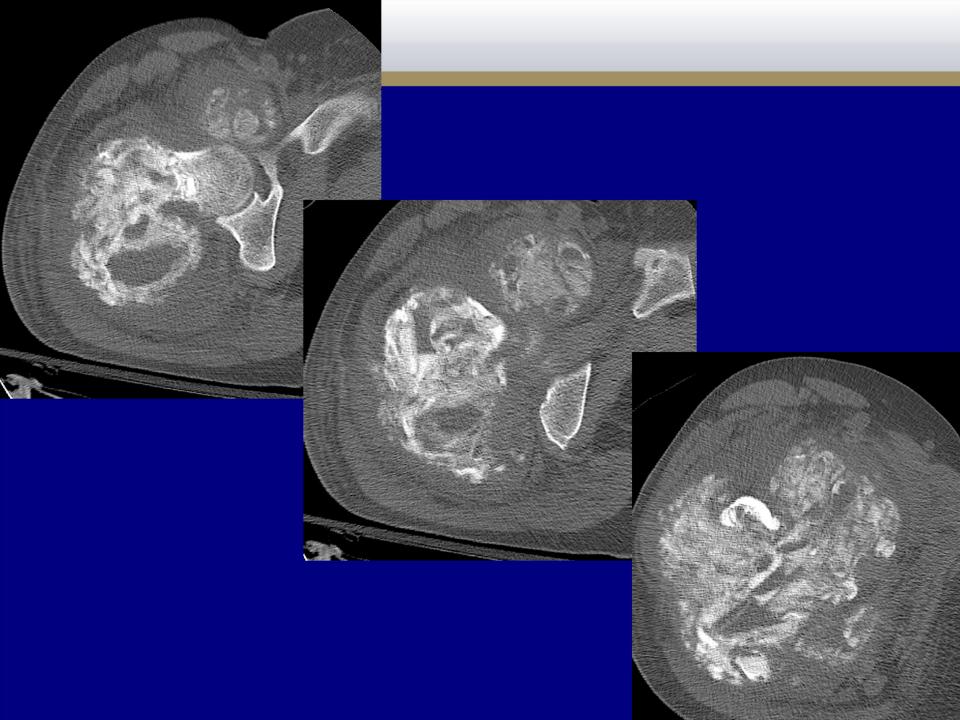


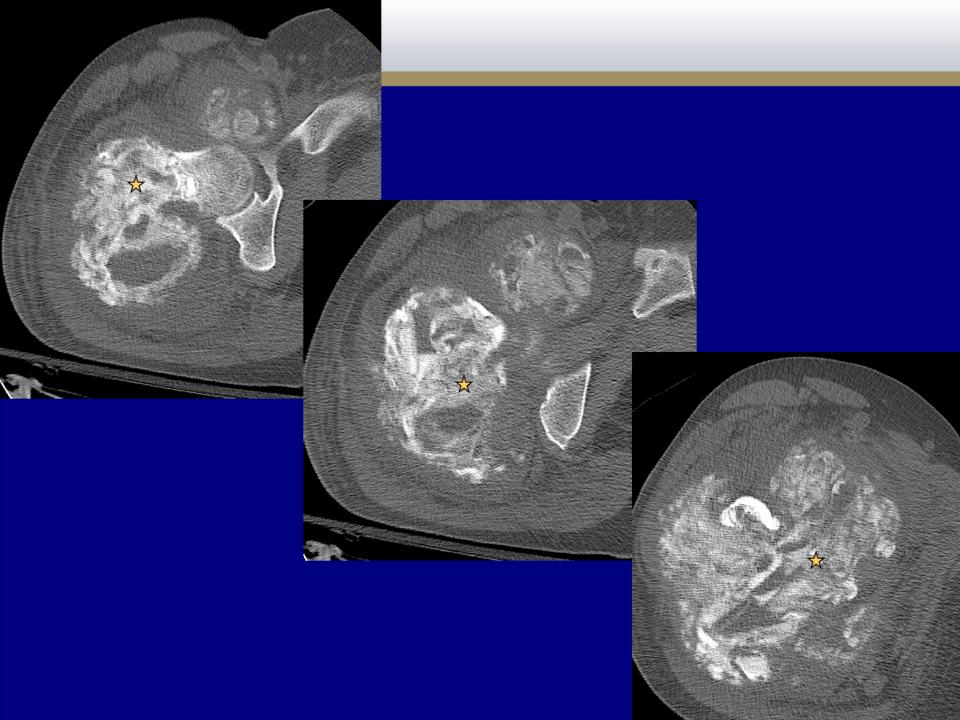


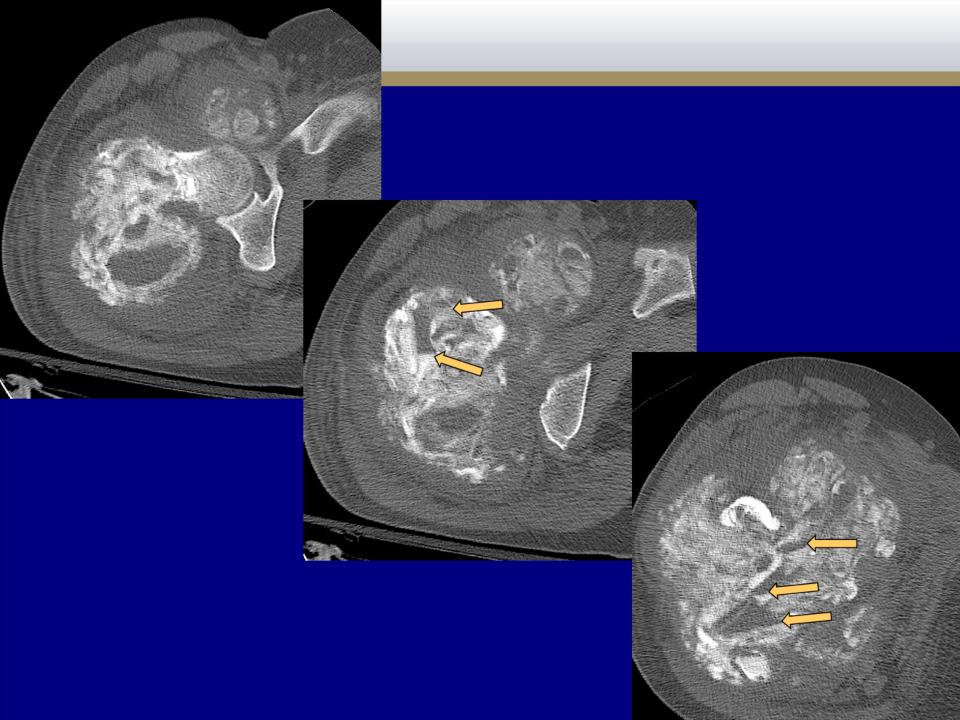






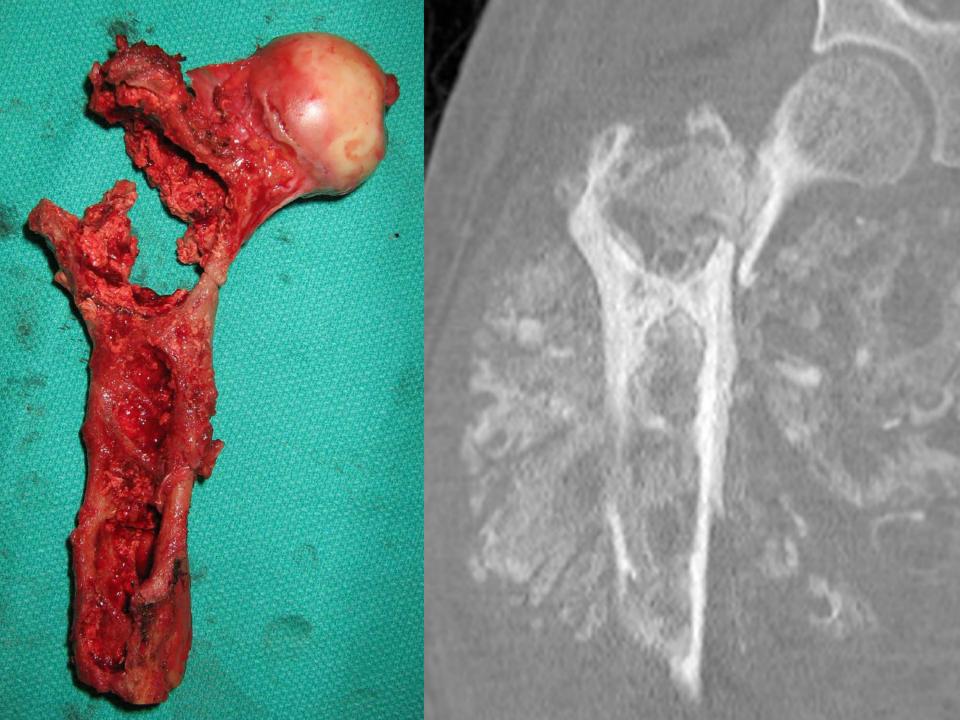


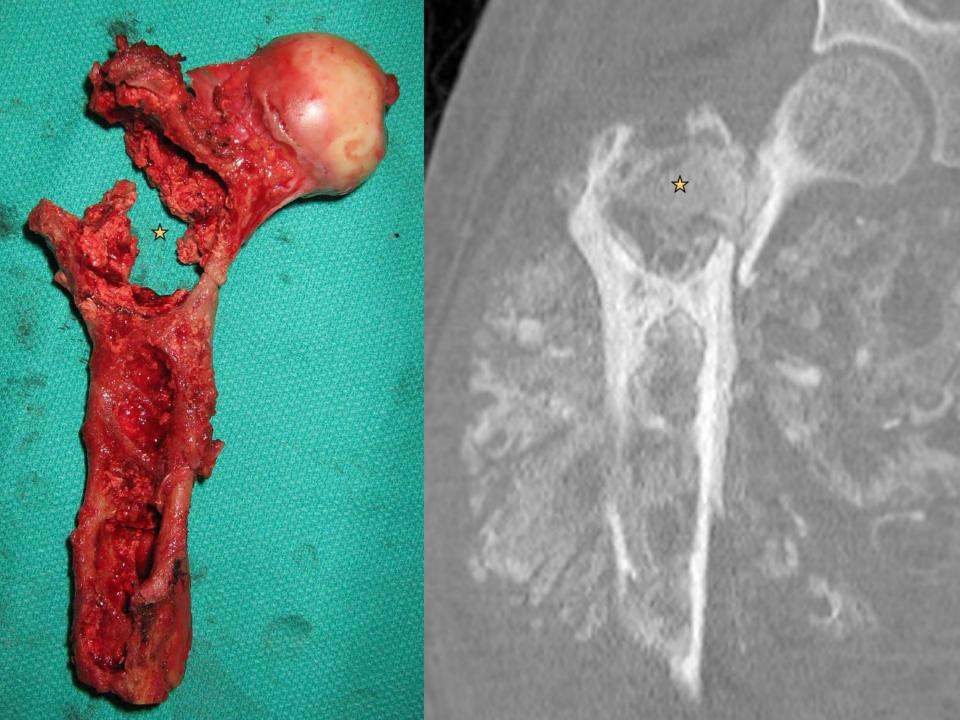


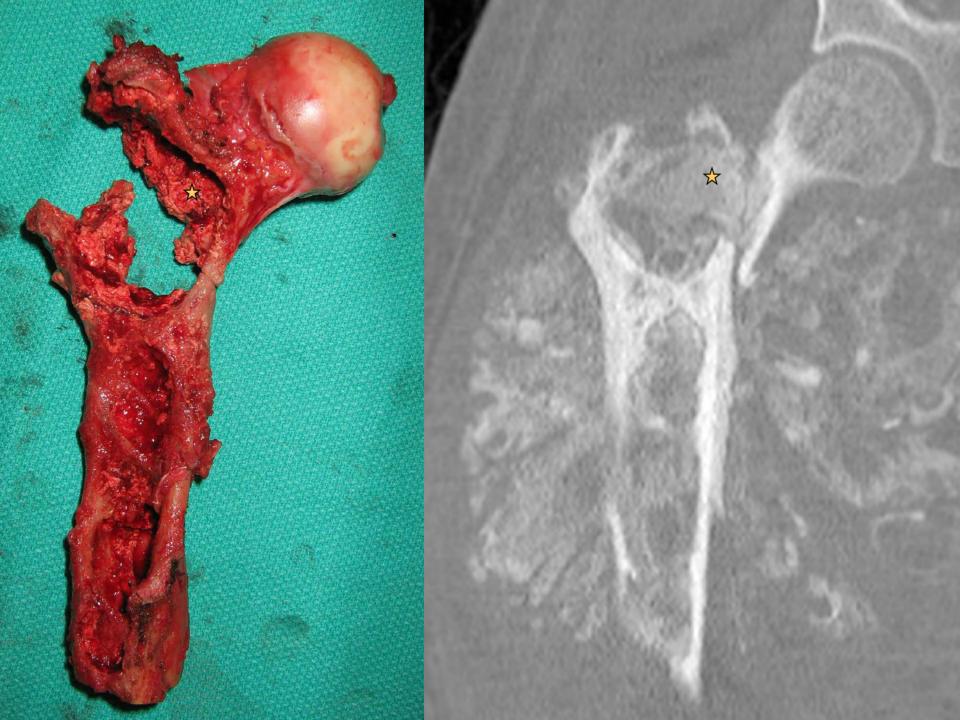


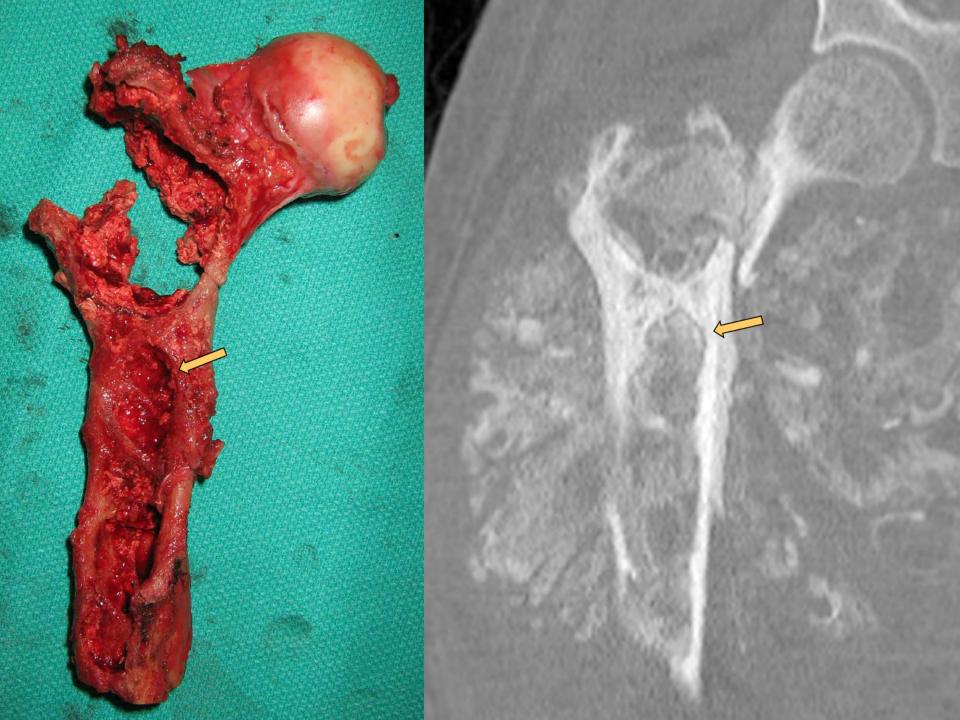


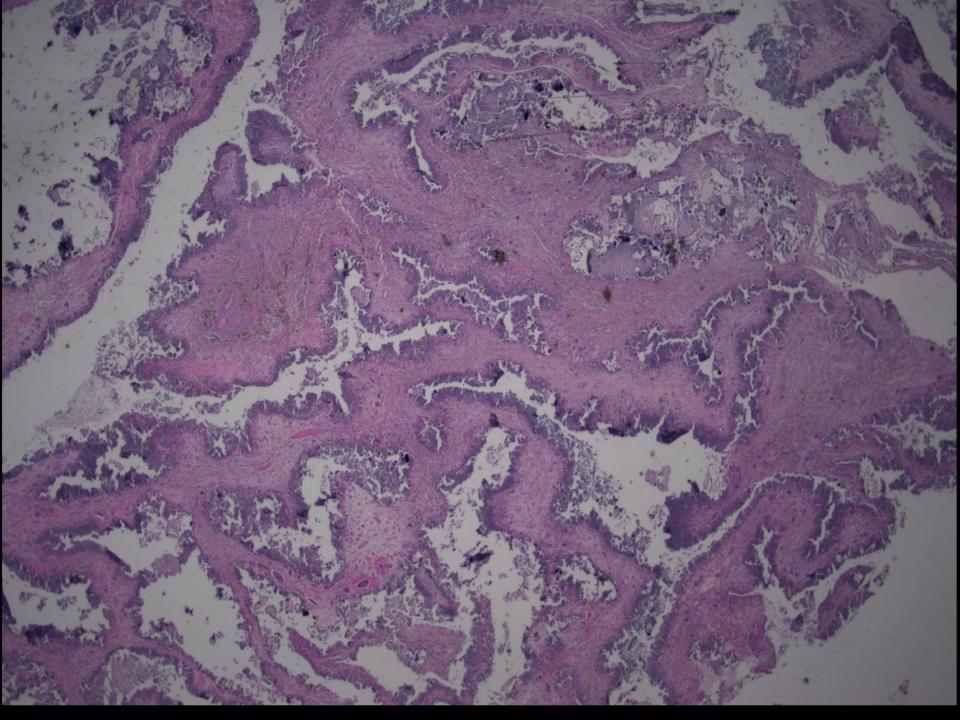


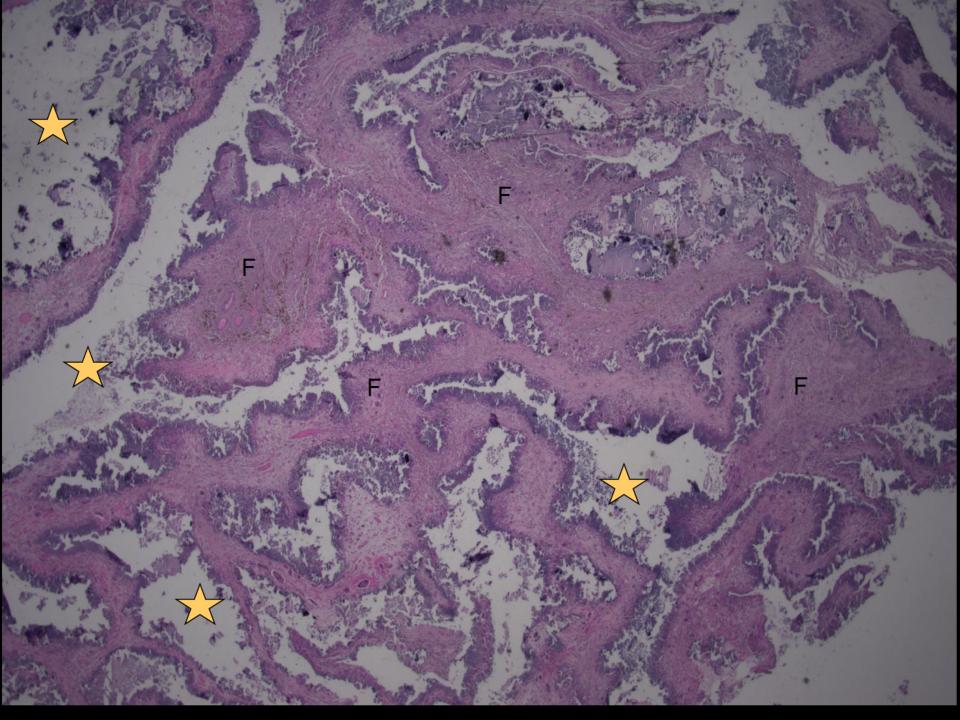


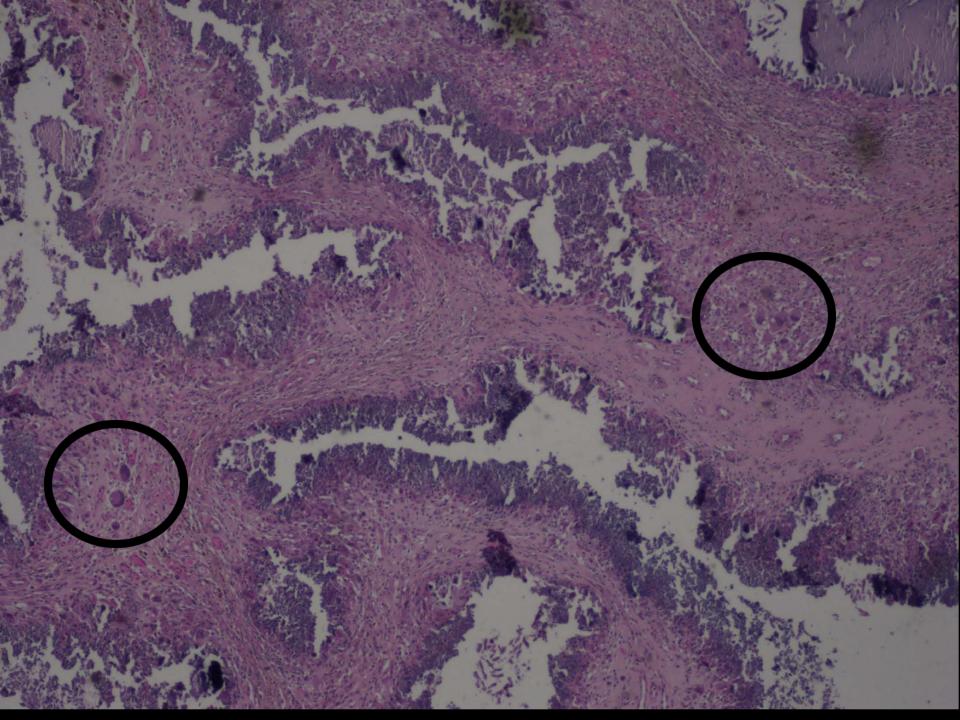


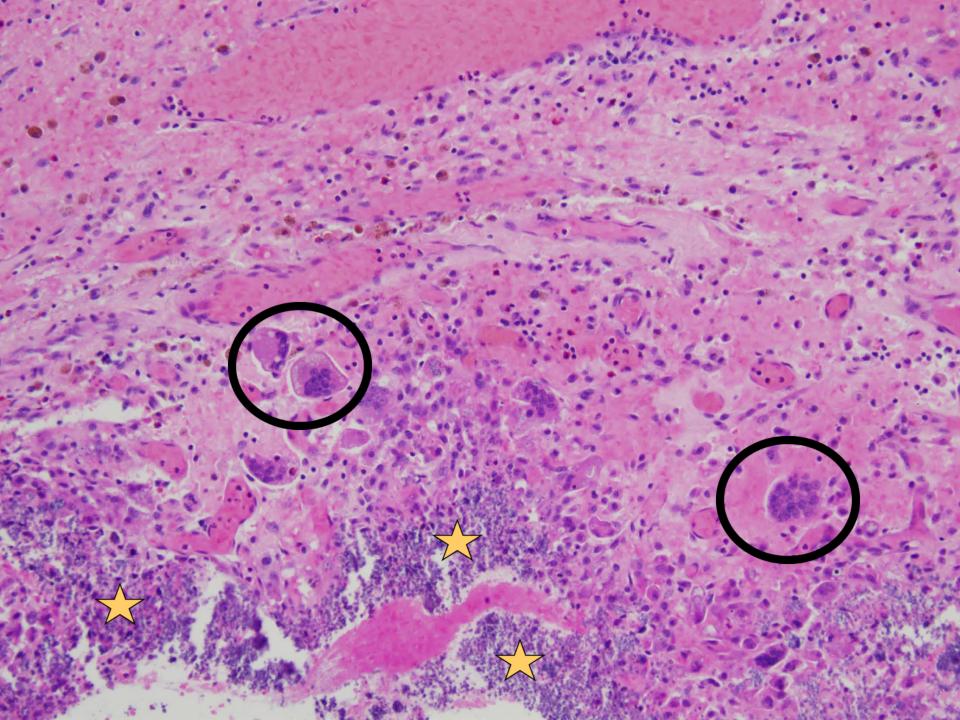










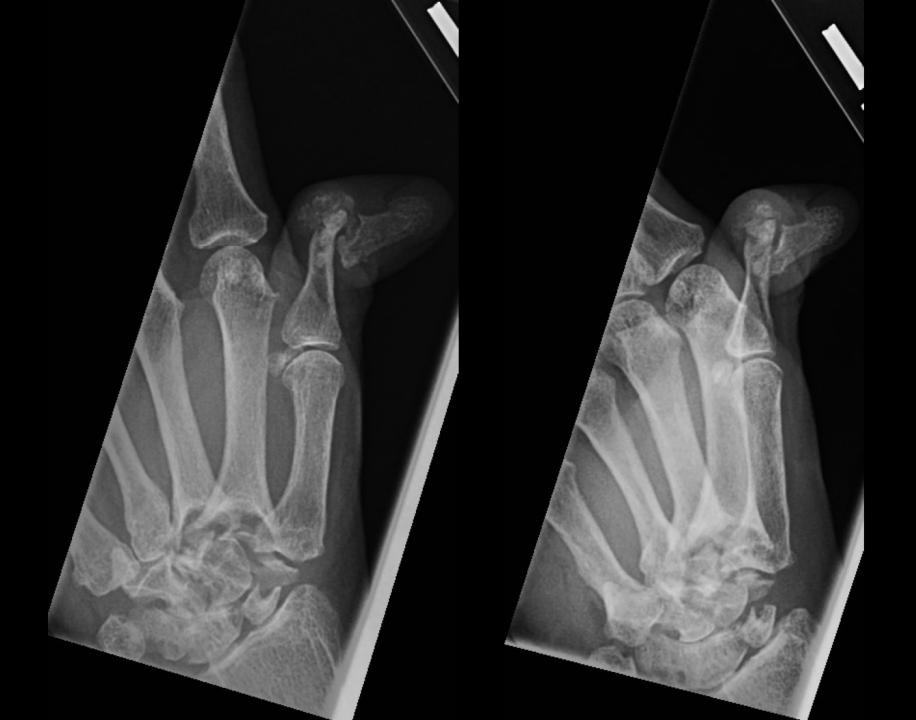




Companion Images











Secondary Tumoral Calcinosis related to ESRD with bone involvement and resultant fracture

Dr. Bhargav Raman Santa Clara Valley Medical Center Santa Clara, California



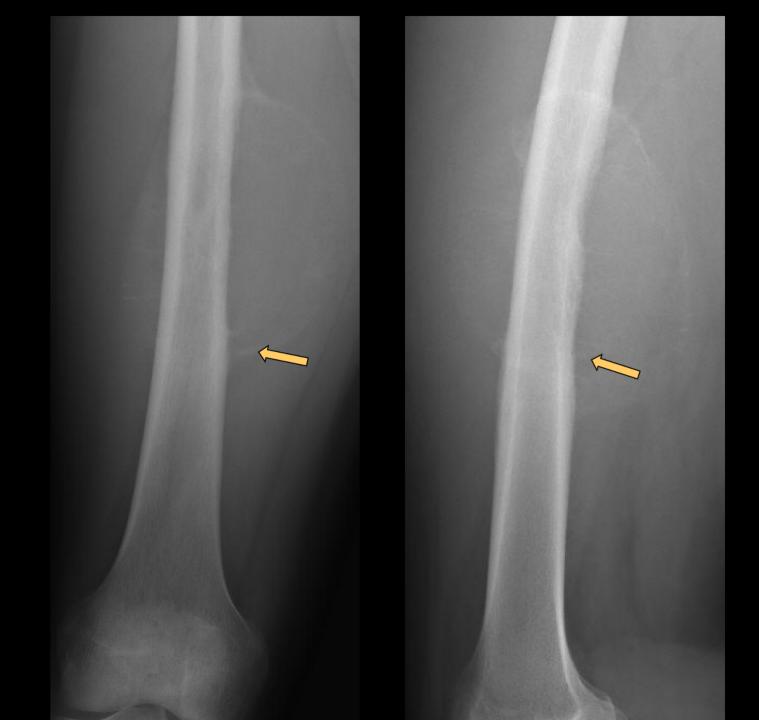
HONORABLE MENTION

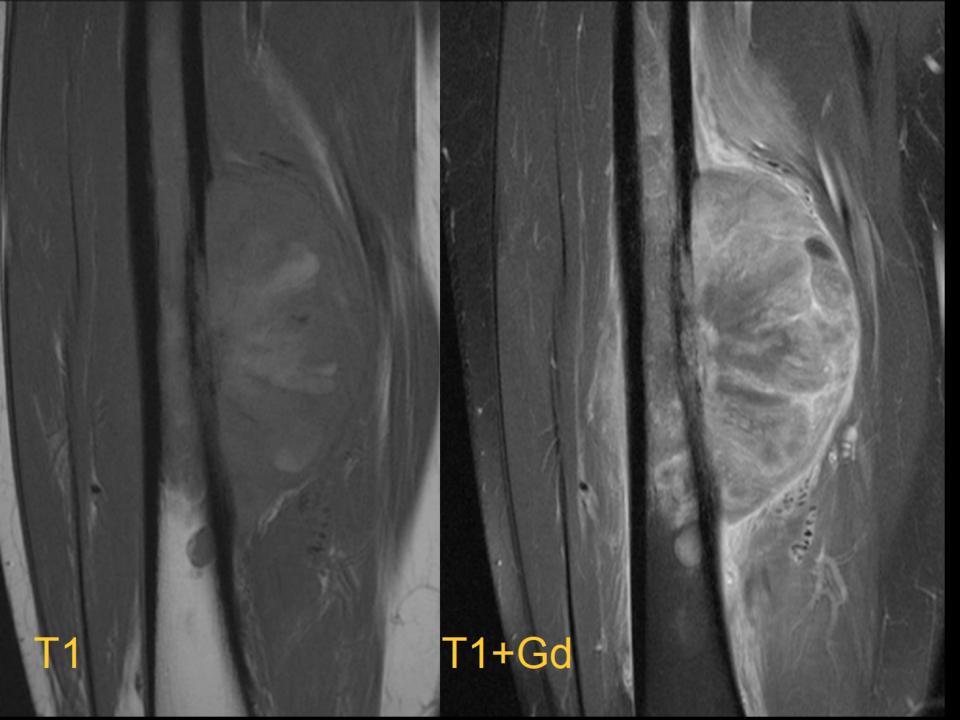


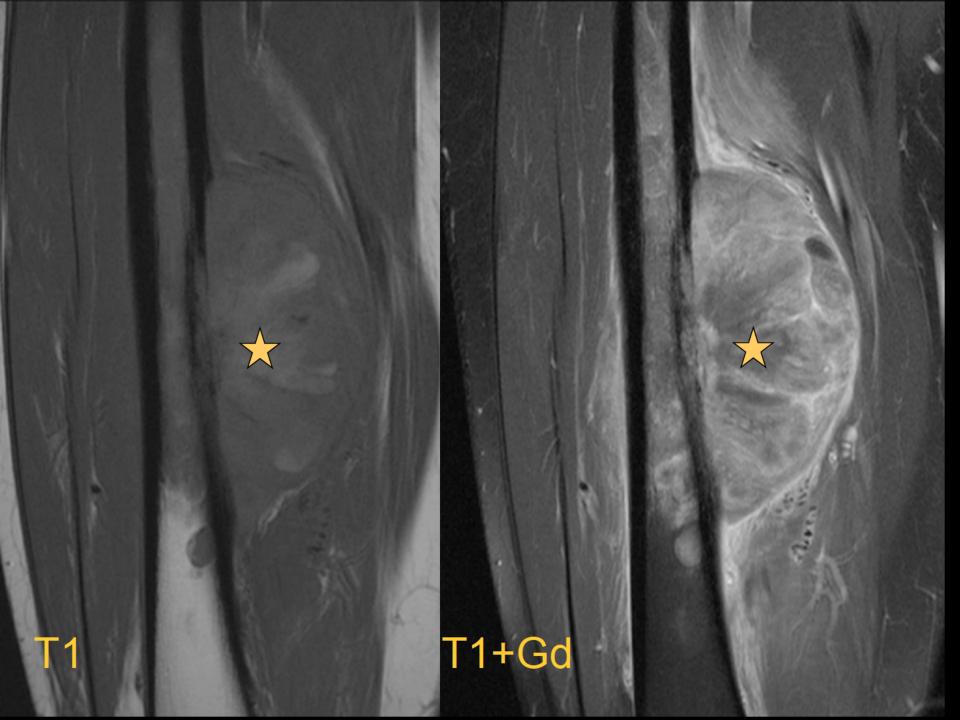
21 year old male with two year history of progressive right leg pain.

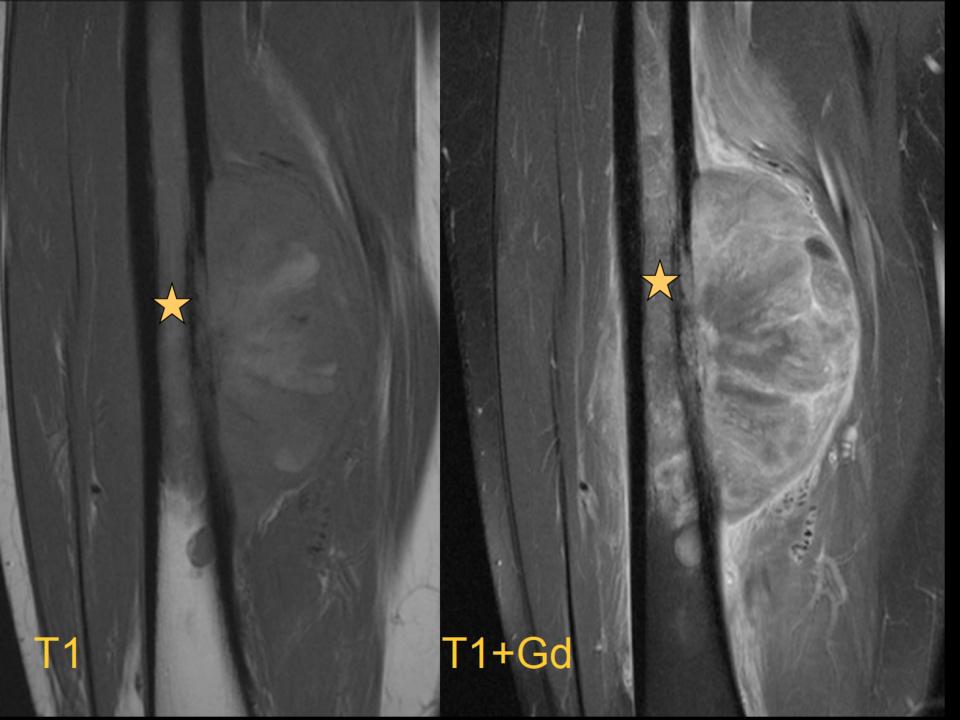


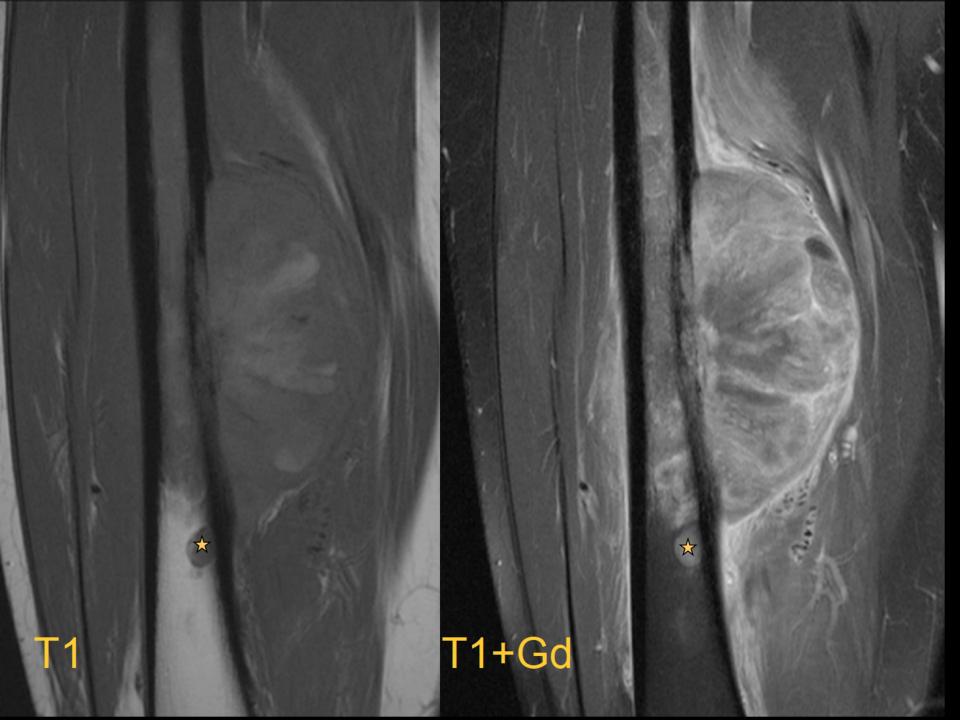


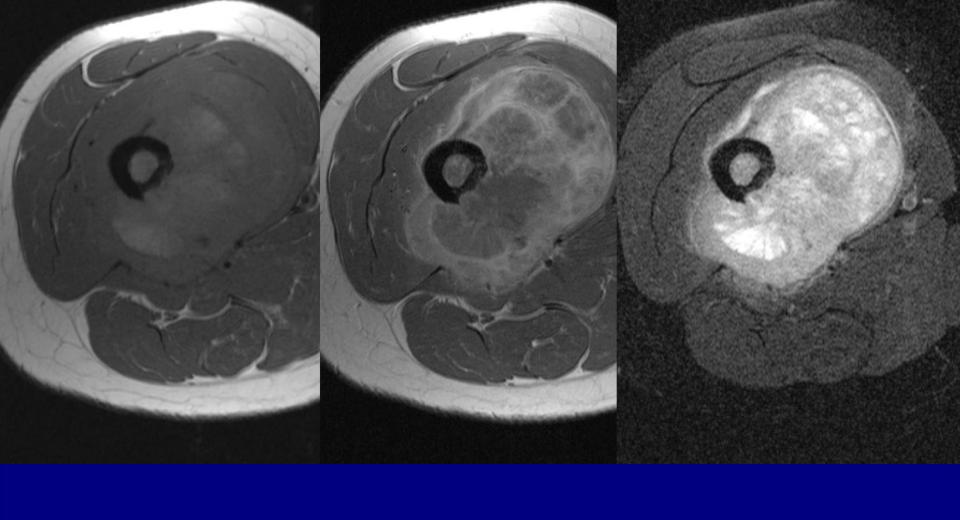




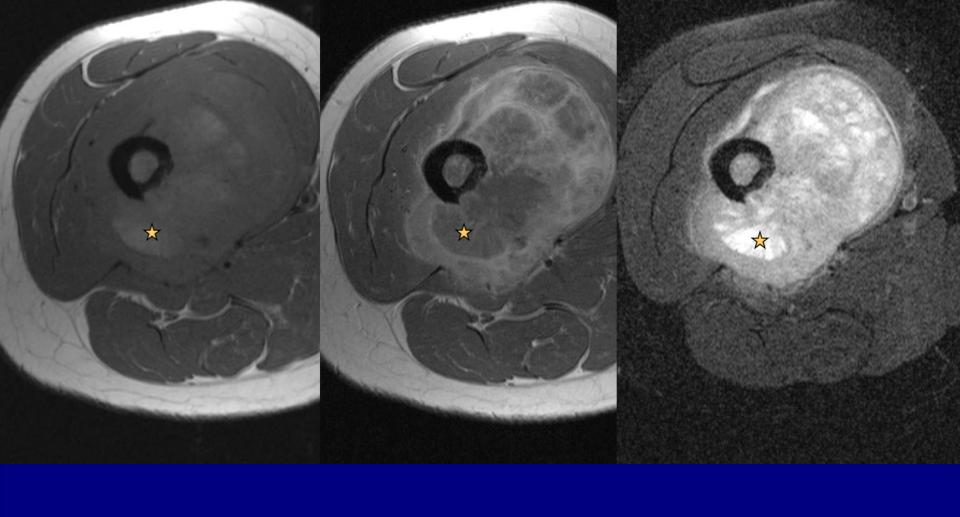


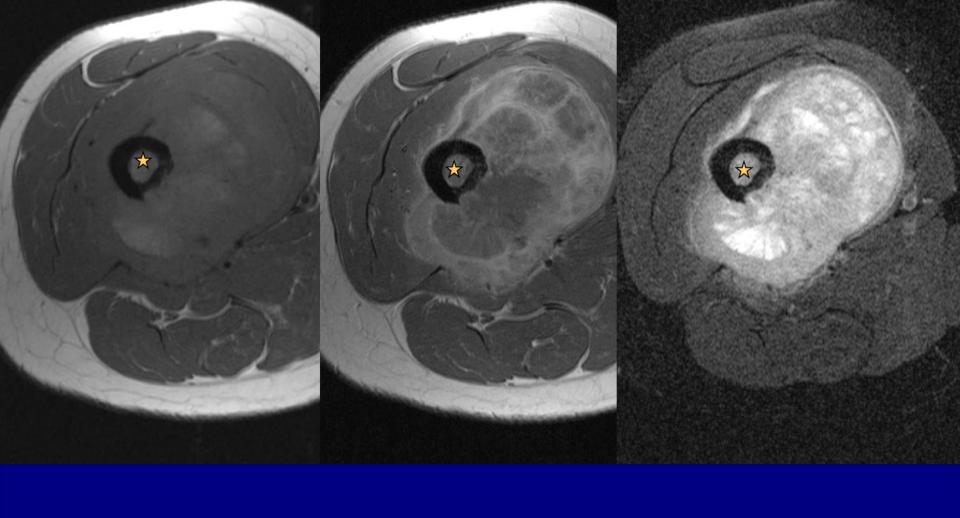


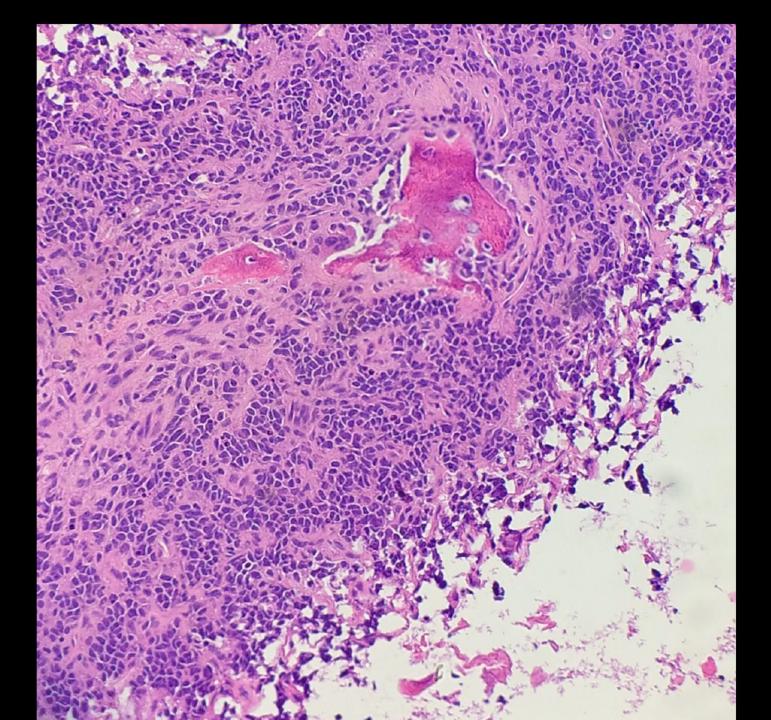




T1 T1+Gd T2FS





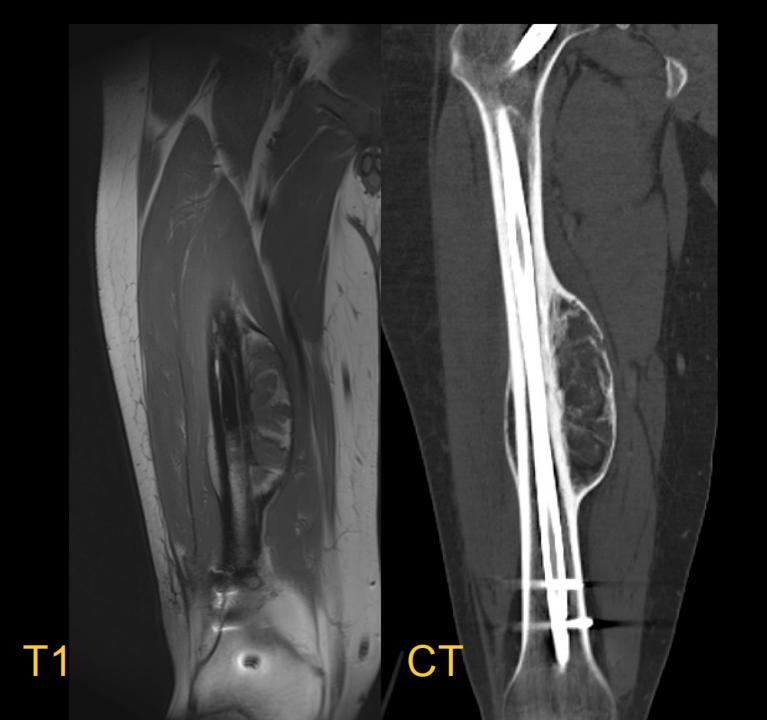


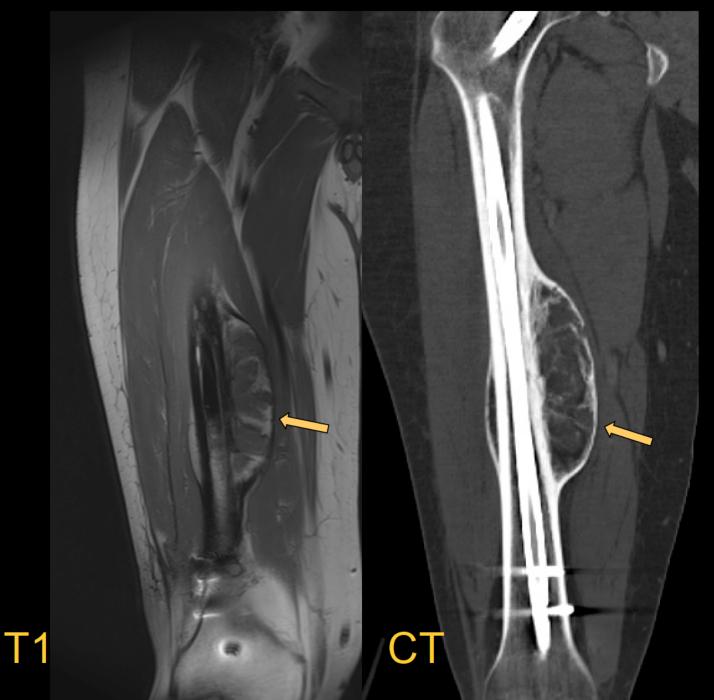


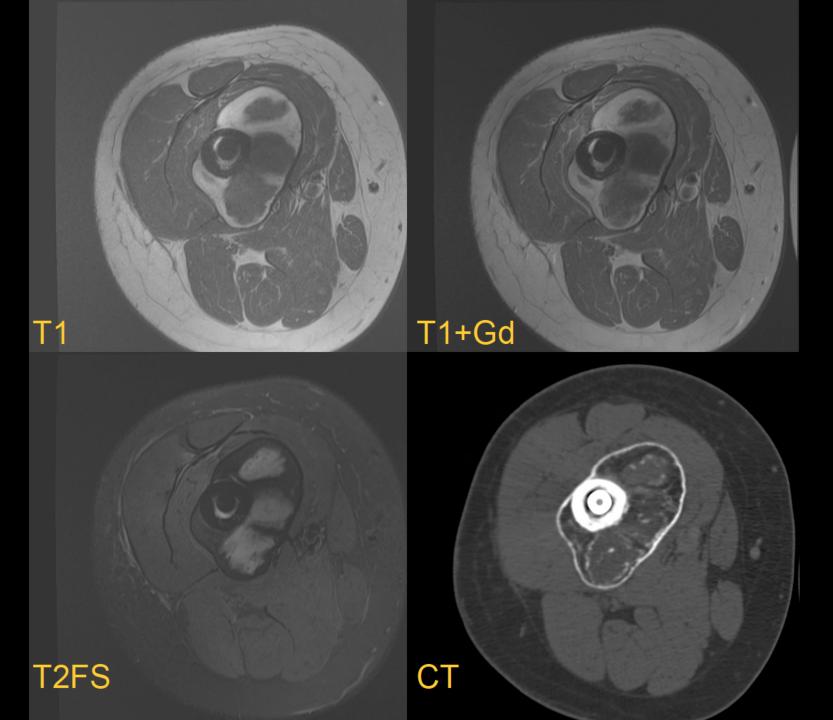
9 month followup imaging after chemotherapy, radiation and prophylactic intramedullary rod placement

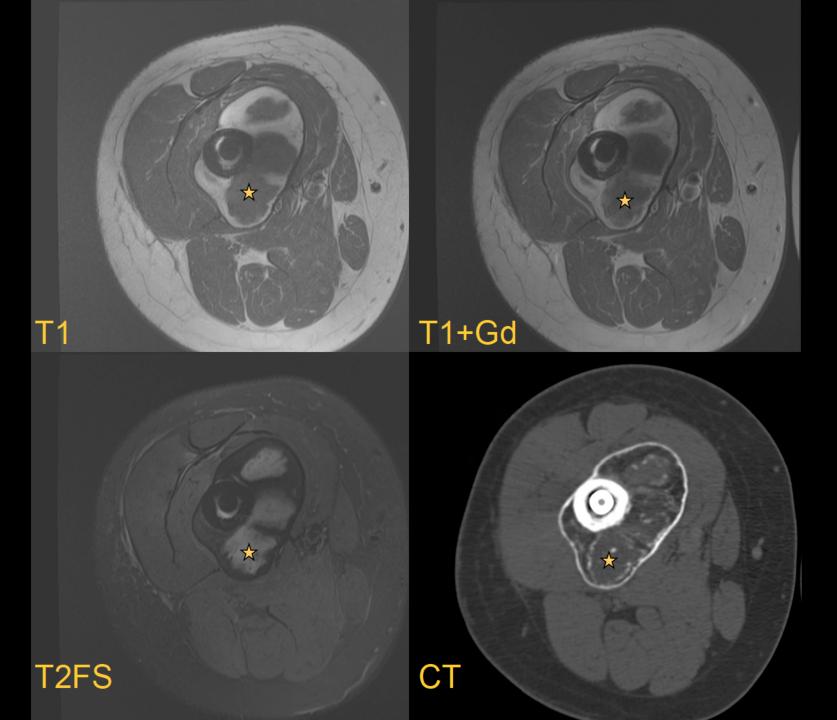


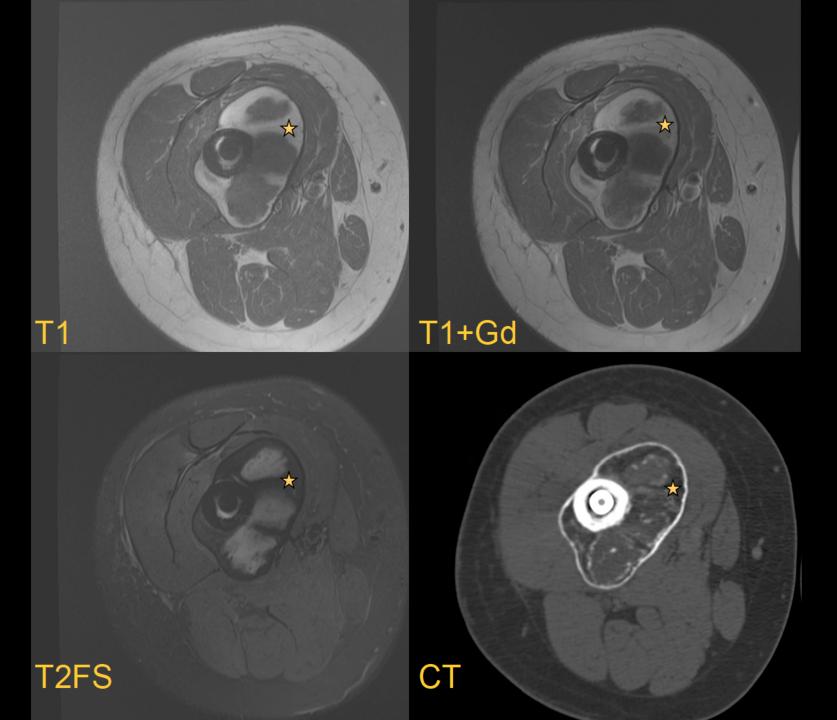


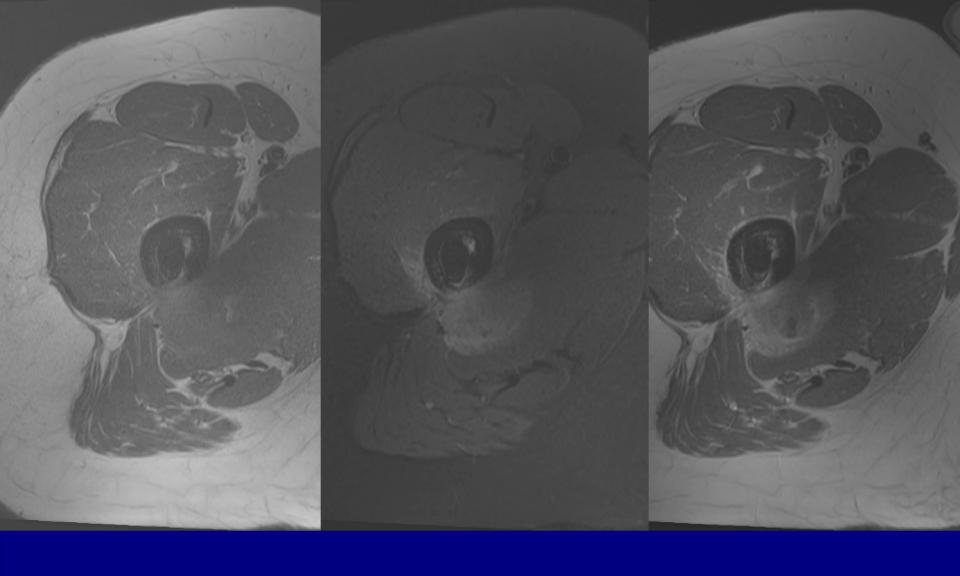


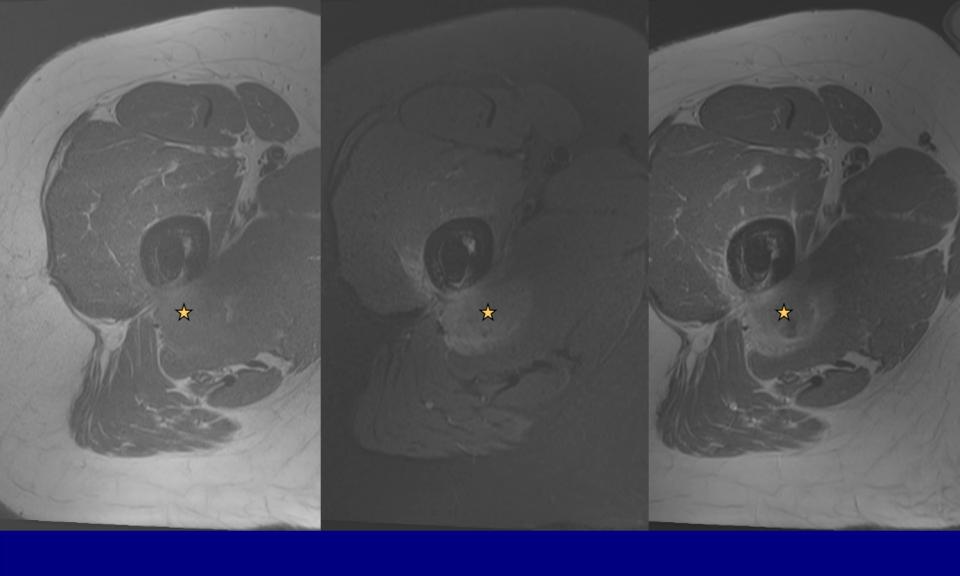


















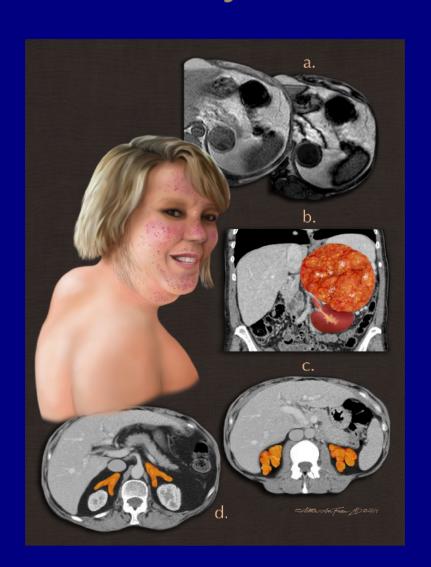


Ewing Sarcoma with recurrence

Dr. Phillip Bates
University of Florida Medical Center
Gainesville, Florida



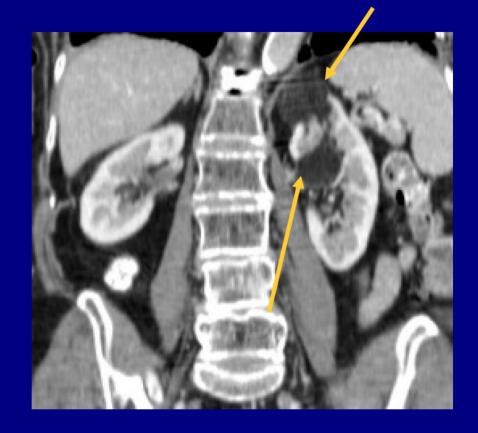
Genitourinary Best Case





90 yo female with a renal mass found on thoracic spine MRI done for vertebral compression fractures.

AIRP













ARP









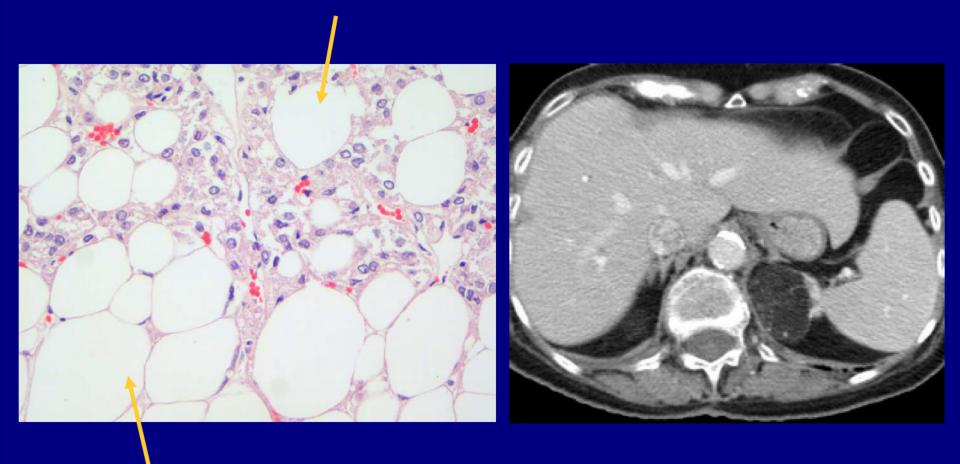














Renal Angiomyolipoma with Extension into the Renal Vein

Paul Aldinger, MD
Toldeo Hospital
Toledo, OH

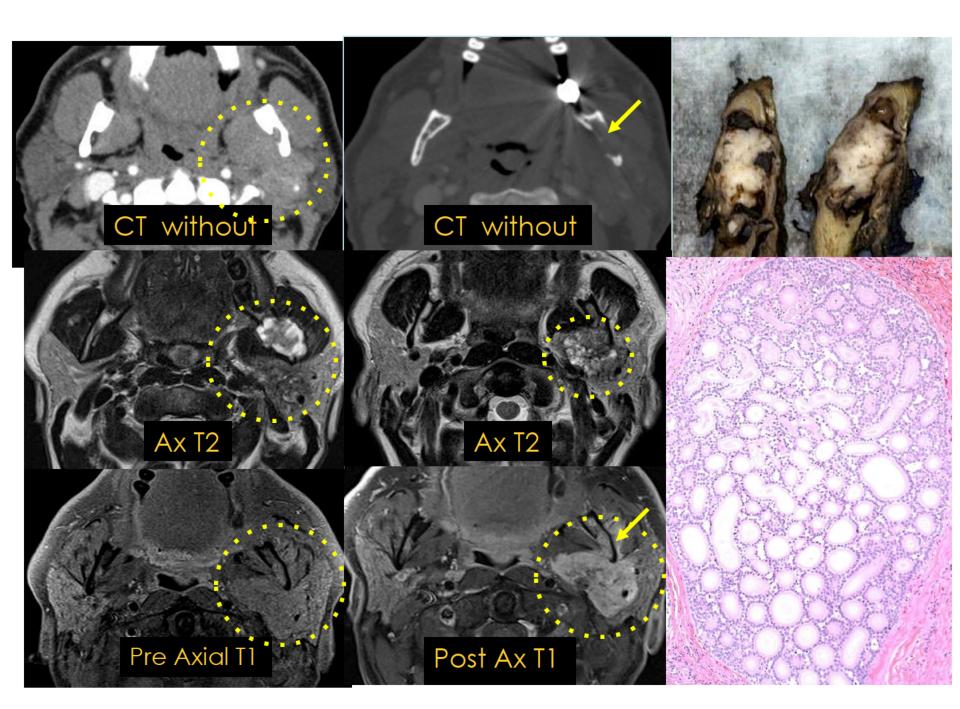


Neuroradiology Best Case





48-year-old male with 3-month history of progressive left facial numbness and pain



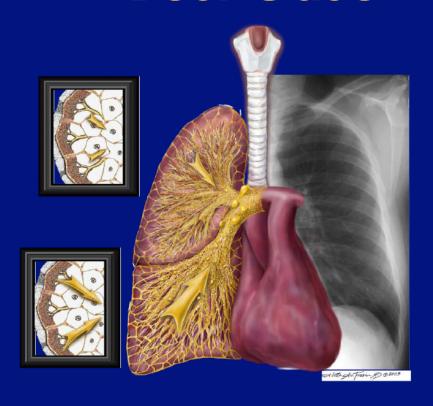


Adenoid Cystic Carcinoma

Tyler Rust, MD San Antonio Military Medical Center Fort Sam Houston, Texas



Pulmonary and Mediastinal Best Case





45 year old male with a non productive cough and fatigue. The patient has a past history of a melanoma with axillary lymph node metastasis in 2005.

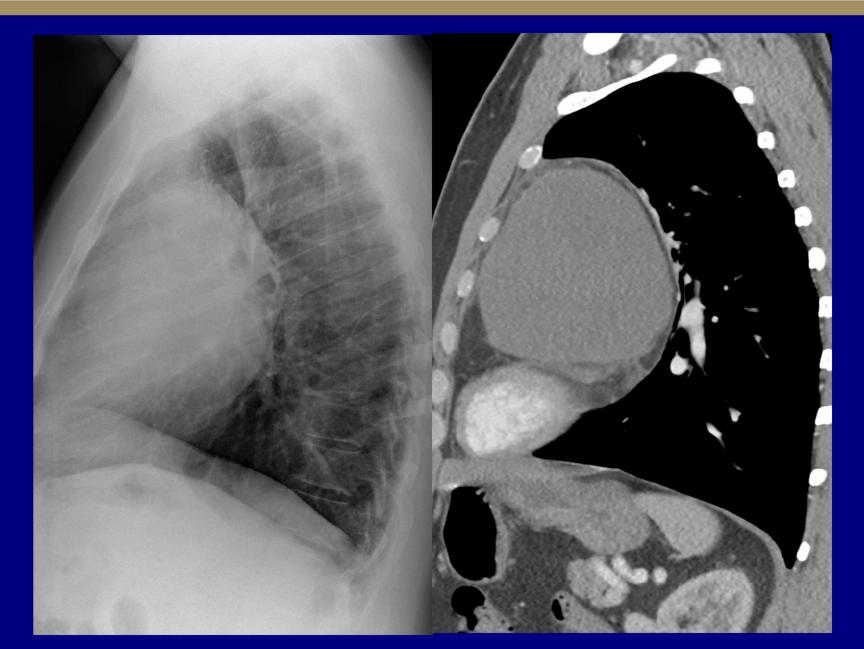


Anterior mediastinal mass

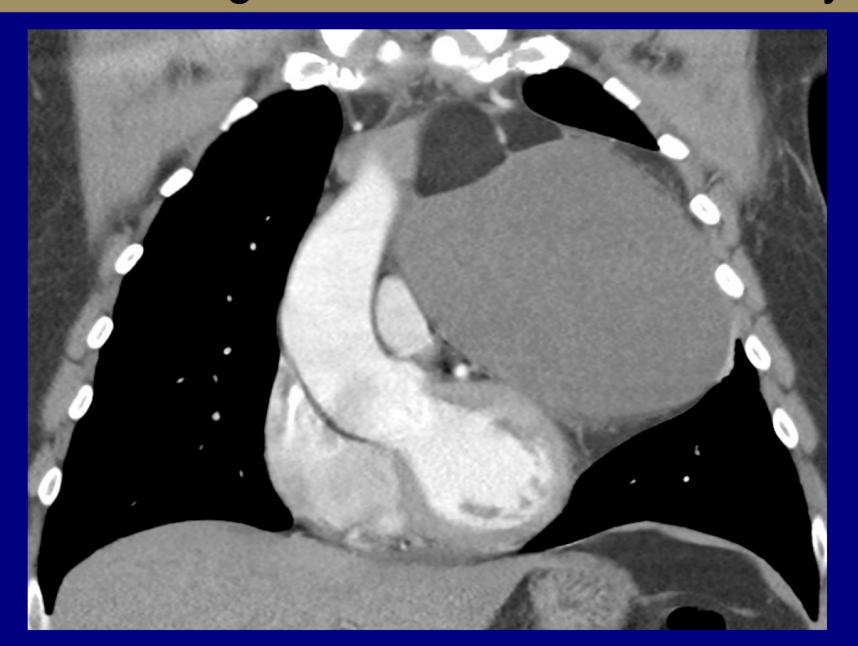




Anterior mediastinal mass

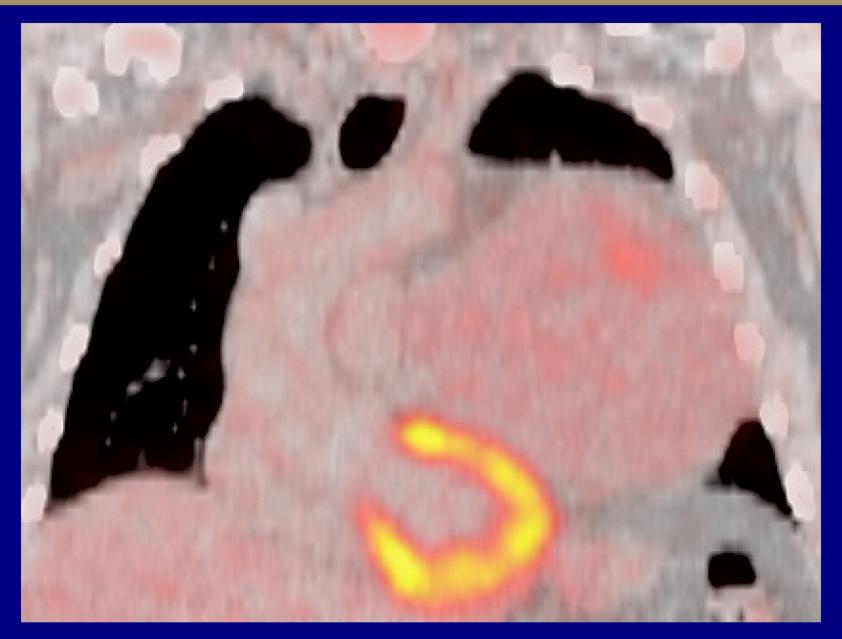


AIRP Homogeneous – soft tissue density



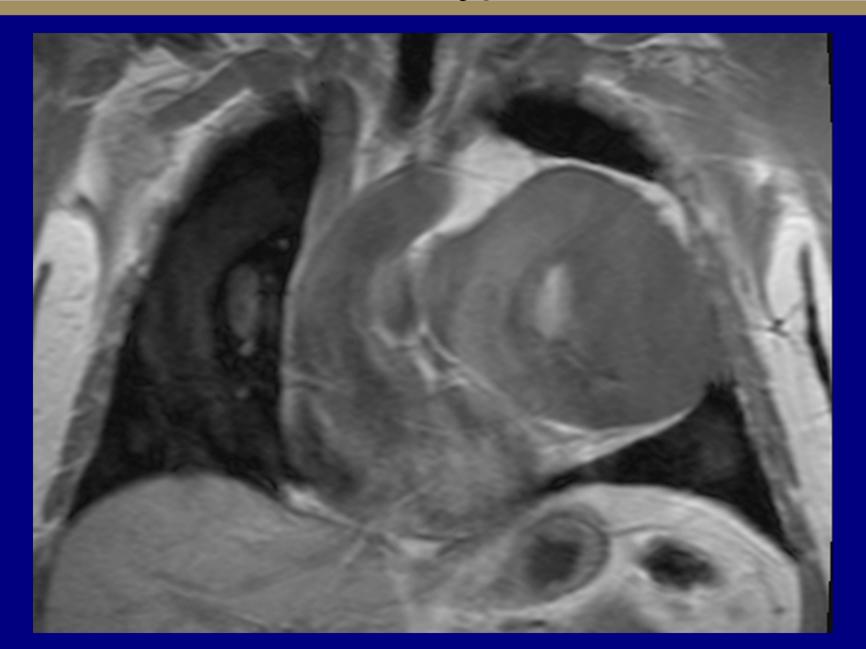


Max SUV: 2.8



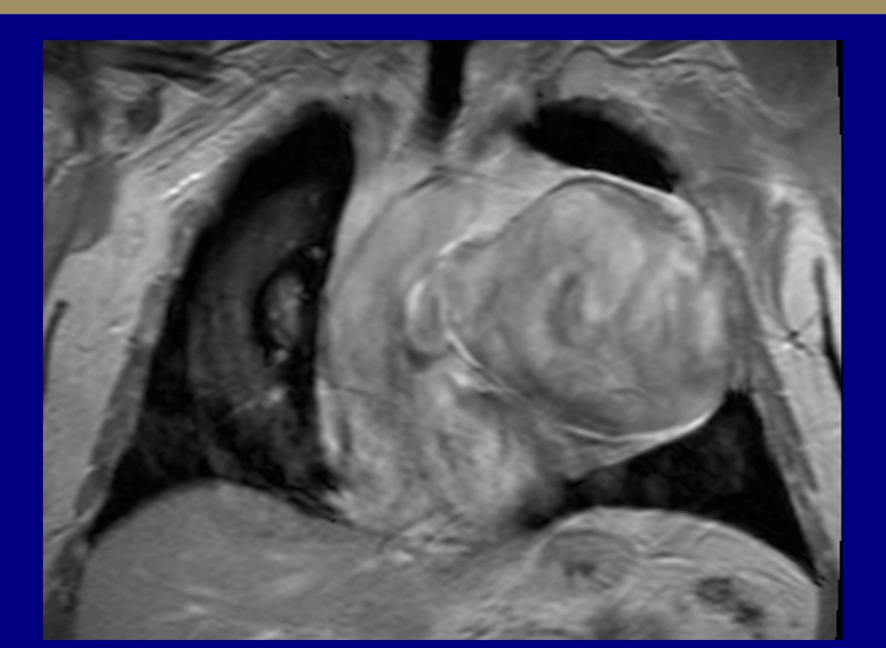


MRI T1: hypointense





AIRP MRI T1: Heterogeneous enhancement



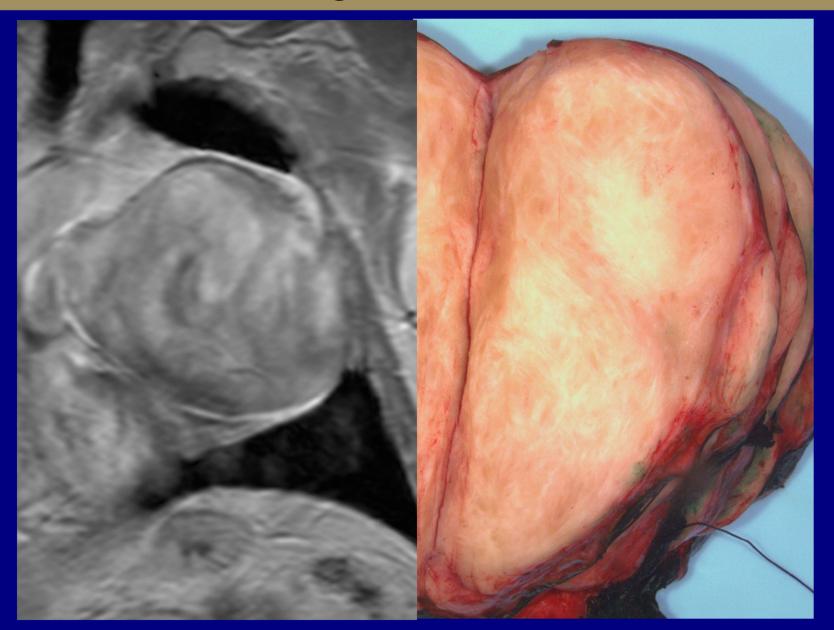


Surgical removal



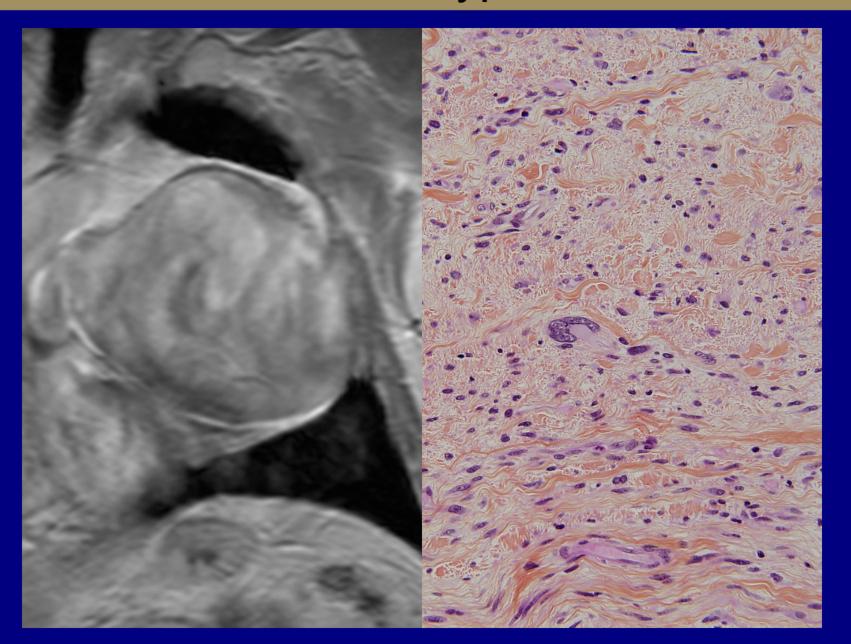


Heterogeneous mass



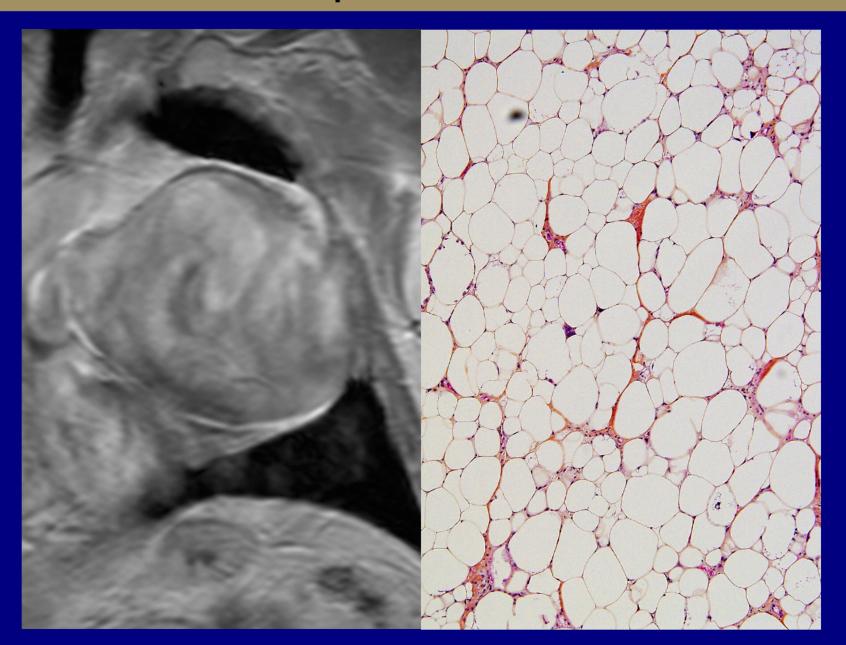


Fusiform atypical cells





Adipose tissue



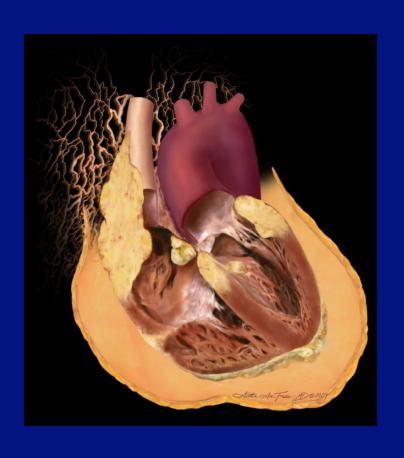


Mediastinal Liposarcoma

Denis Theriault, MD
Hospital Notre-Dame
Montreal, Quebec, Canada



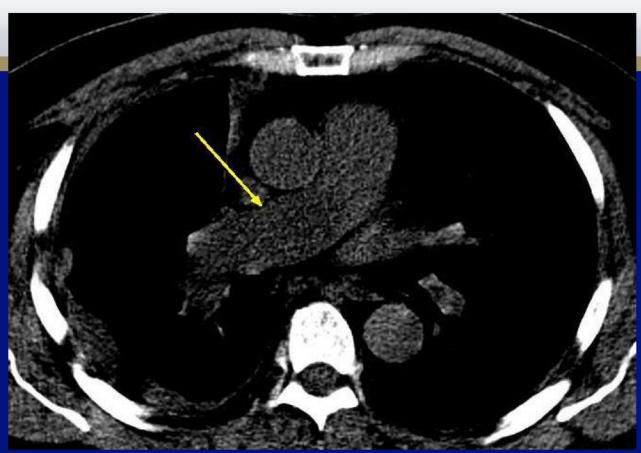
Cardiovascular Best Case





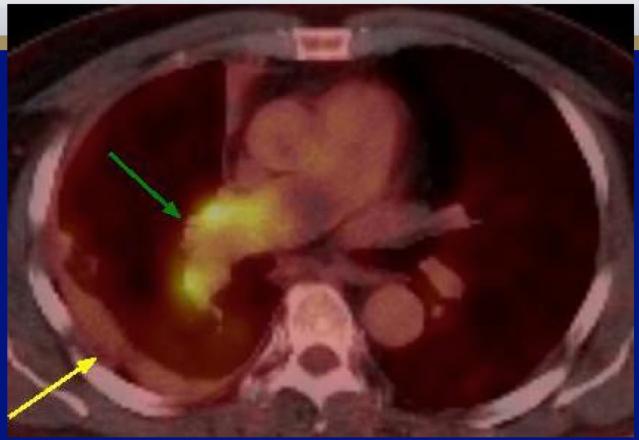
59 yo sedentary truck driver presents with three-week history of progressive dyspnea.





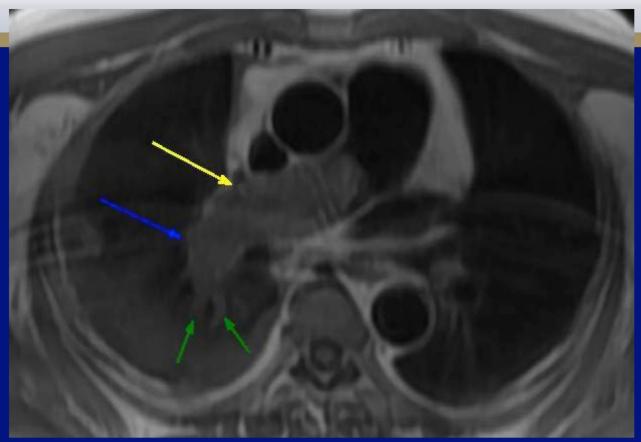
Non-contrast CT of the chest demonstrates subtle but large low attenuation filling defect (yellow arrow) within the right pulmonary artery.



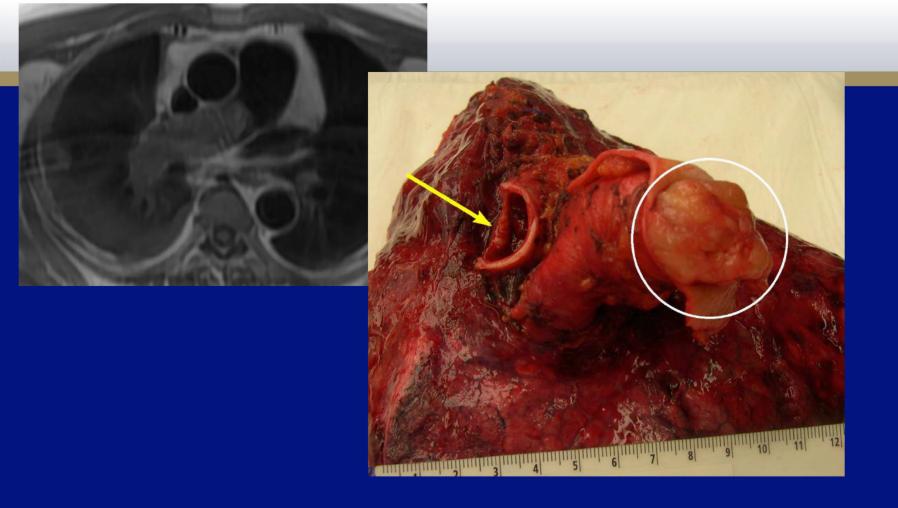


Fused PET-FDG CT axial image shows hypermetabolic activity throughout the intravascular mass (green arrow). There is a small right pleural effusion noted (yellow arrow).



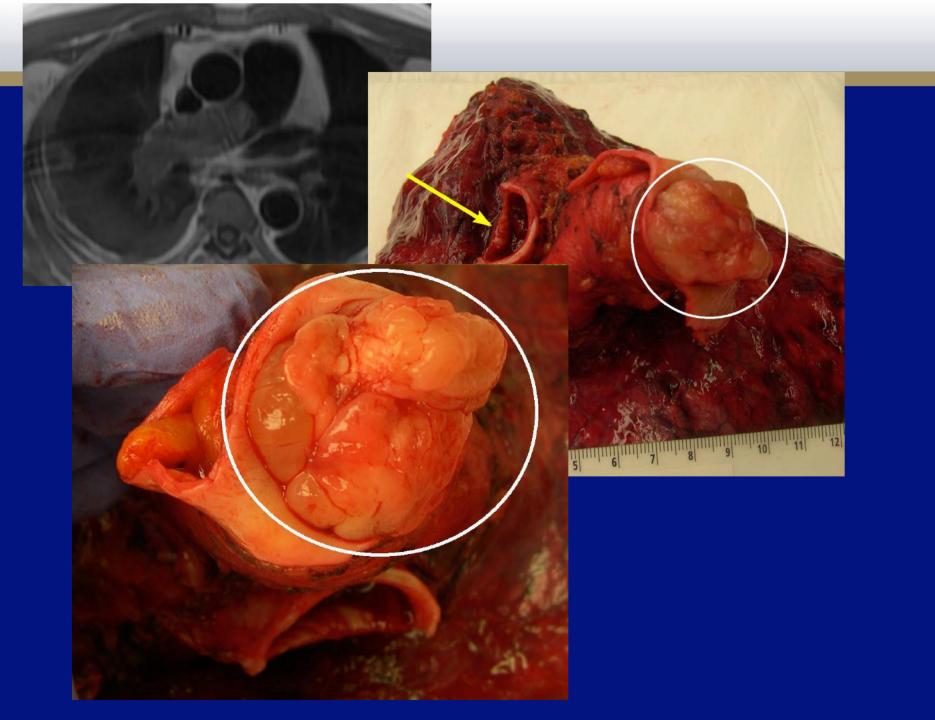


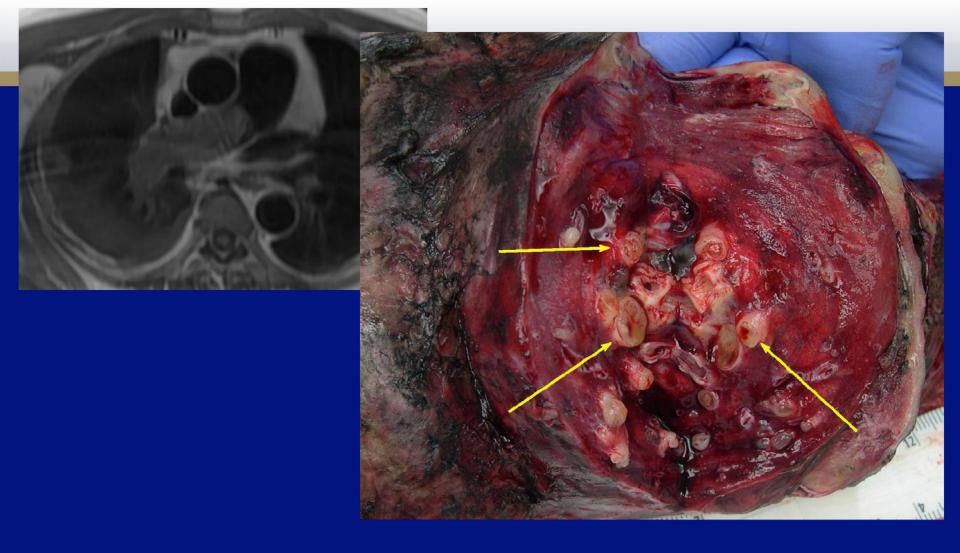
Axial T1-weighted inversion recovery MR image shows hyperintense mass filling the lumen of right pulmonary artery (yellow arrow), with extension into right lower lobe lobar (blue arrow) and segmental (green arrow) arteries.



Transected right pulmonary artery lumen is completely occluded with a tumor mass (white circle).

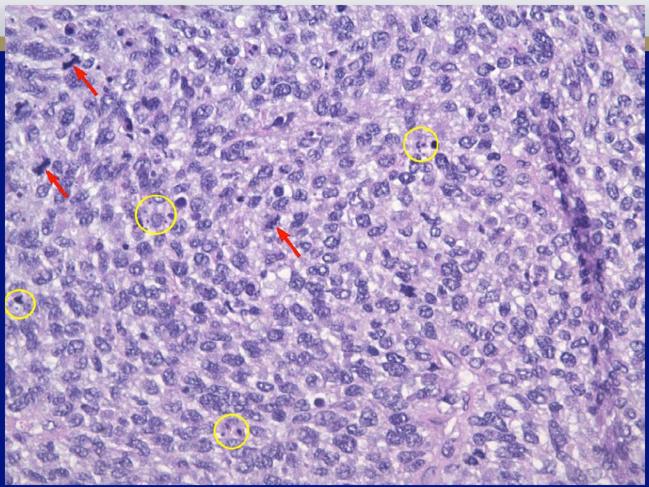
Adjacent right mainstem bronchus is patent (yellow arrow).





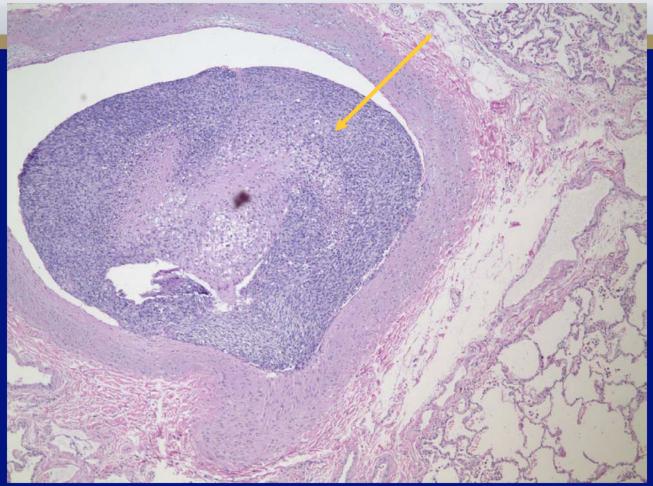
Dissected right lung reveals tumor extension distally into multiple segmental and subsegmental arterial branches (yellow arrows).





High power histology (H&E) shows round cells which contain pleomorphic nuclei & vesicular chromatin. There are numerous mitotic figures (red arrows) and extensive apoptotic debris (yellow circles).





Low power histology (H&E) shows tumor within a peripheral pulmonary artery, without evidence of adjacent parenchymal invasion.

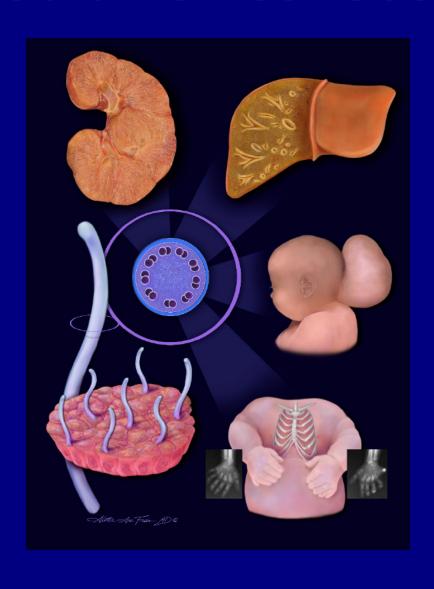


Intimal Sarcoma of the Pulmonary Artery

Sheilah Curran-Melendez, MD Allegheny General Hospital Pittsburgh, PA



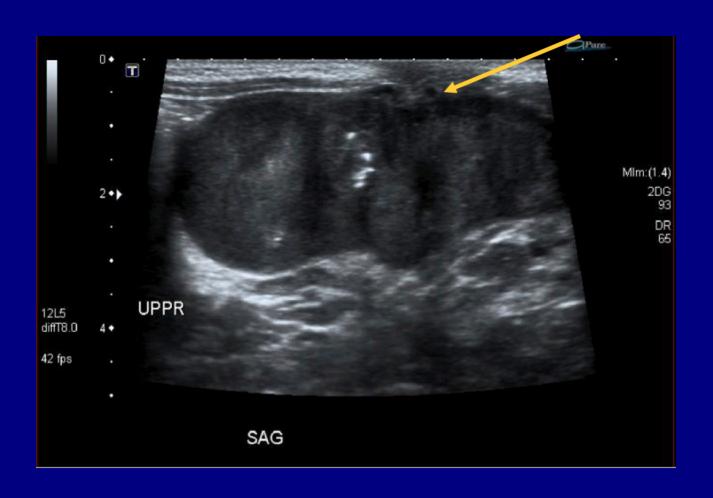
Pediatric Best Case



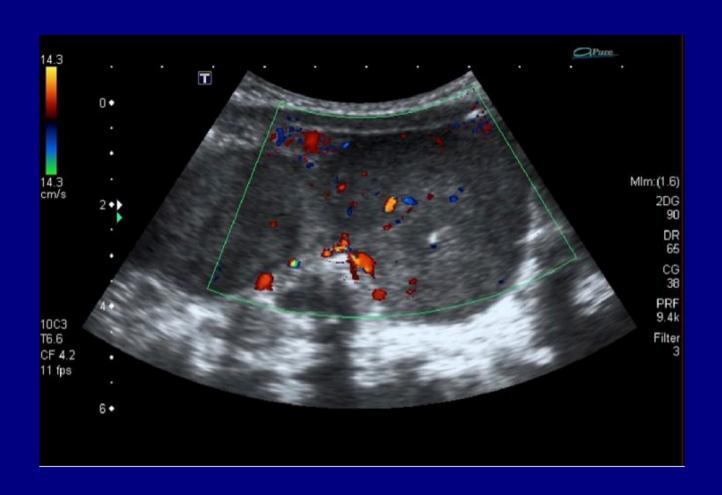


14-months-old girl with known failure to thrive and severe iron deficiency. Her parents noticed an abdominal mass one month ago. She was also having reduced oral intake and weight loss. Otherwise, she was felling well, no vomiting, no diarrhea. She was still an active child.

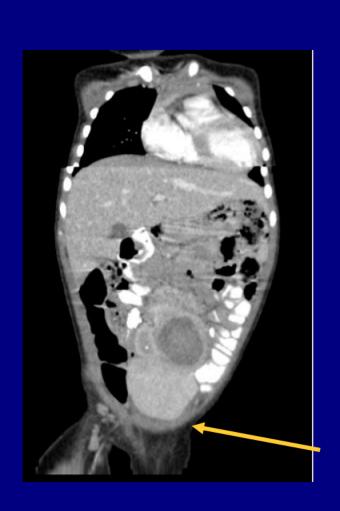












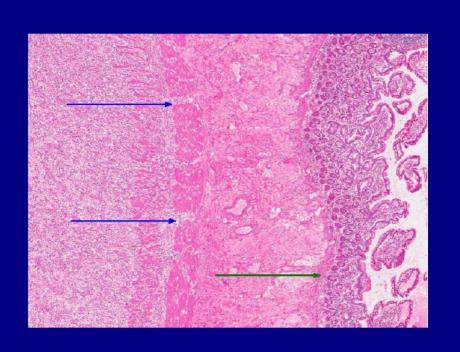






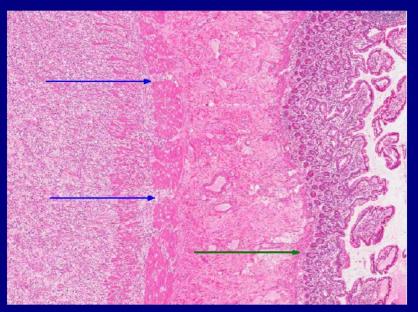


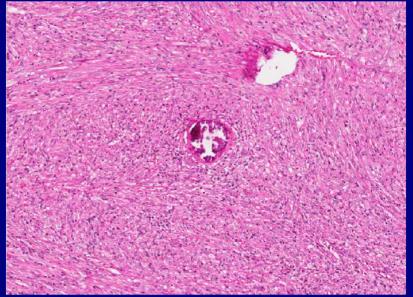














Inflammatory Myofibroblastic Tumor

Myriam Irislimane, MD
McGill University Health Centre
Montreal, Canada



Breast Best Case

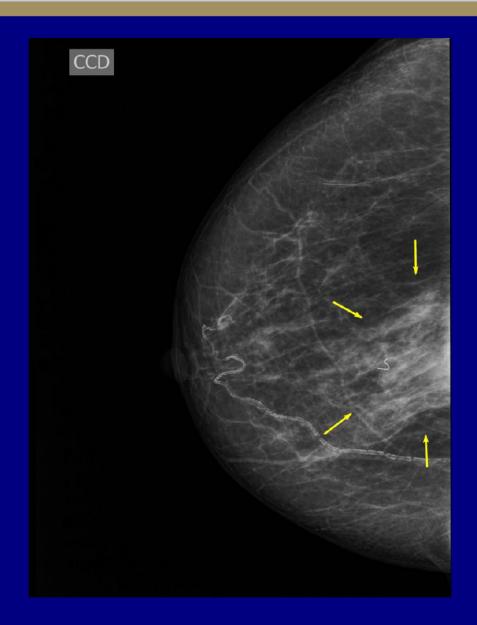




84 yo female with 6 month history of palpable right breast lump. No axillary adenopathy. No other known health issues.

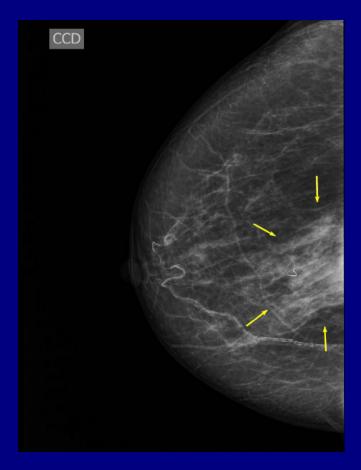


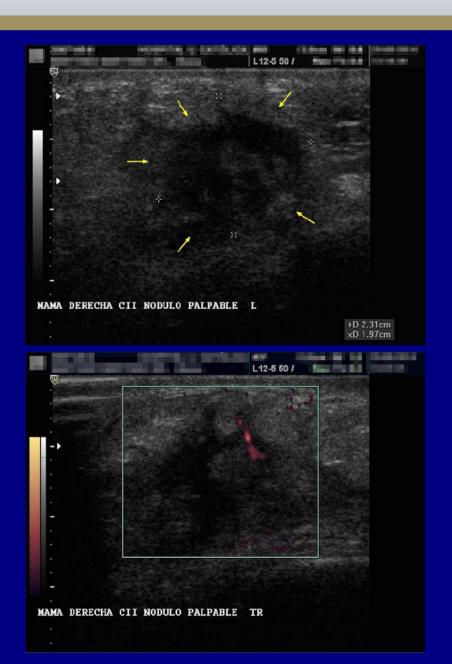
Right





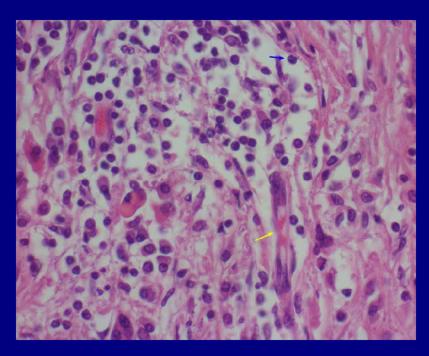
Right

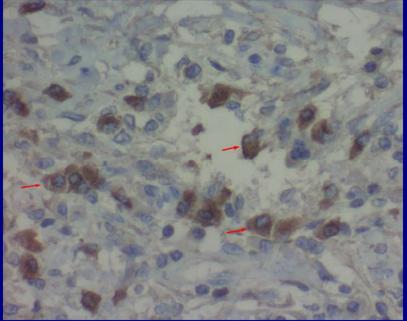






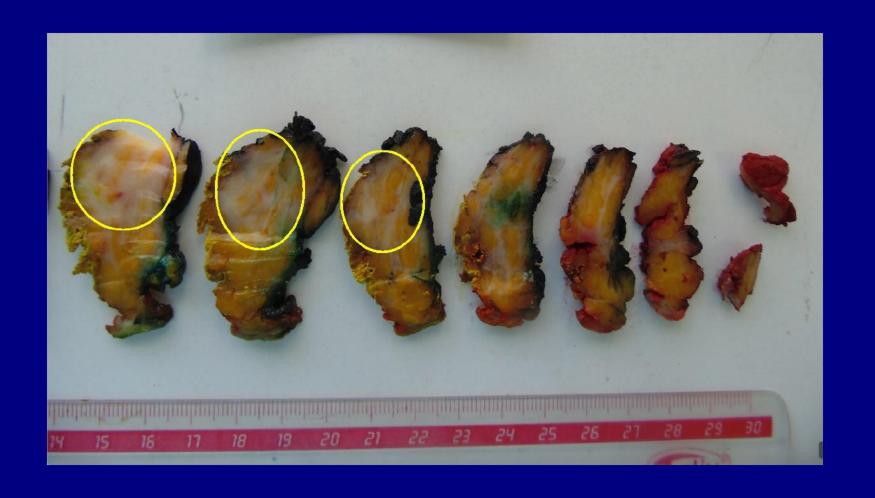
Histology







Gross Pathology





IgG4 Related Sclerosing Mastitis

Eugenio Zalaquett, MD
Hospital Clinico de la Pontificia Universidad
Católica de Chile
Santiago, Chile



Gastrointestinal Best Case

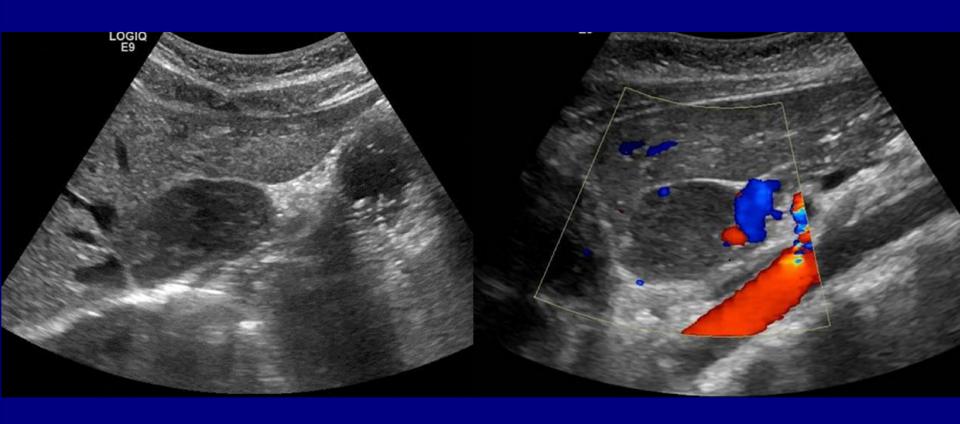




- 20 year old Caucasian female presents with abdominal pain for 10 months.
- PMH: Migraine headaches, Factor V
 Leiden mutation, protein S deficiency
- US was requested

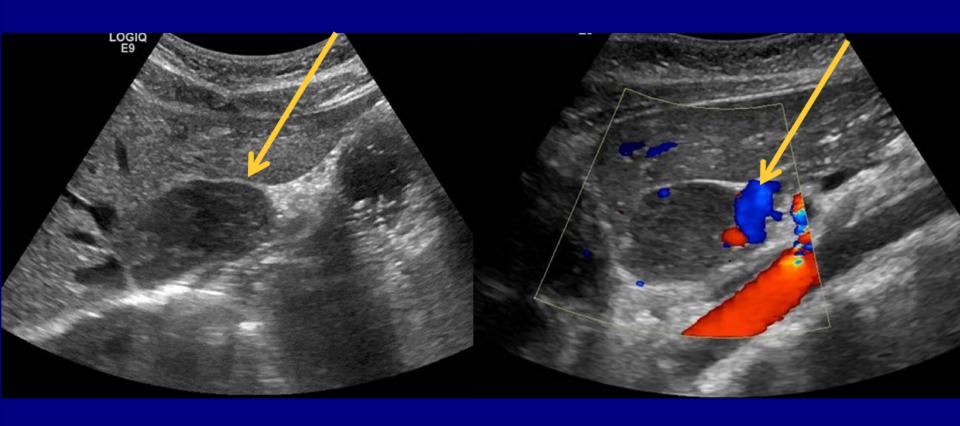


Ultrasound





Ultrasound



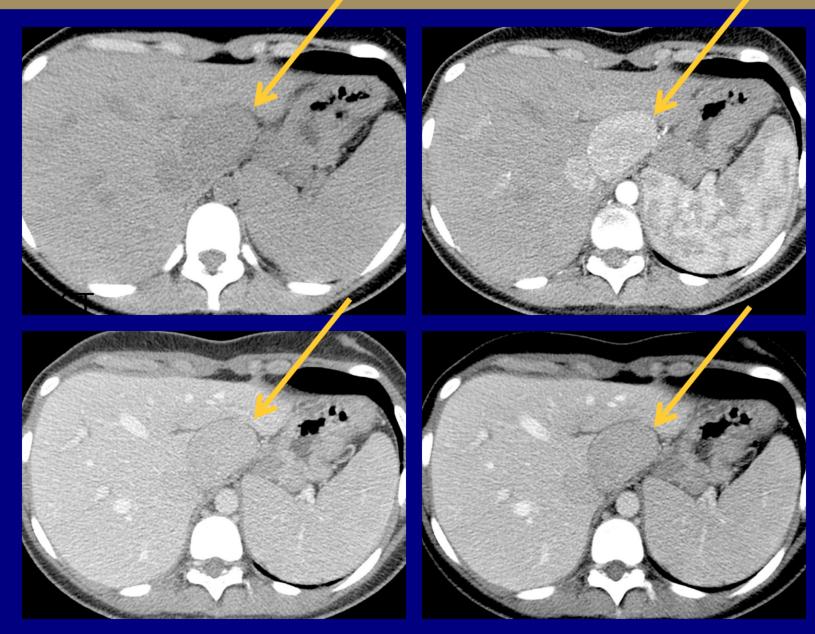


CT



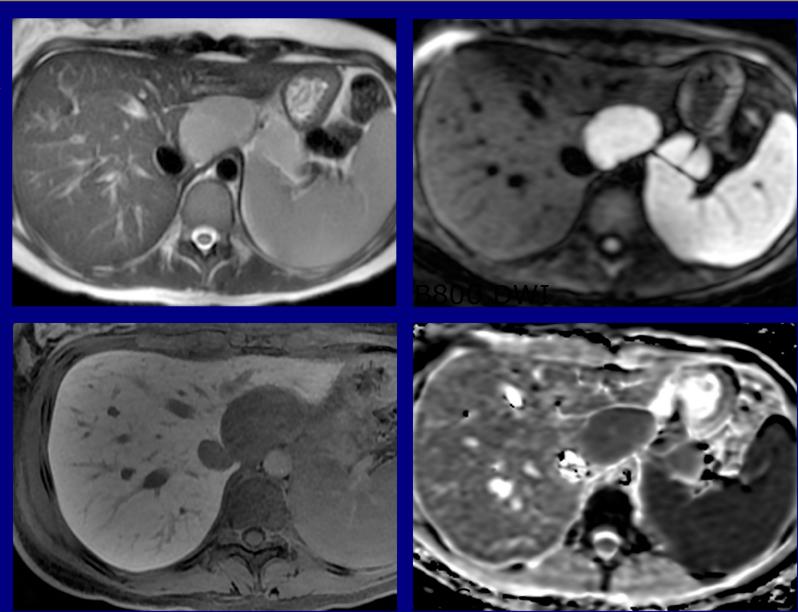


CT



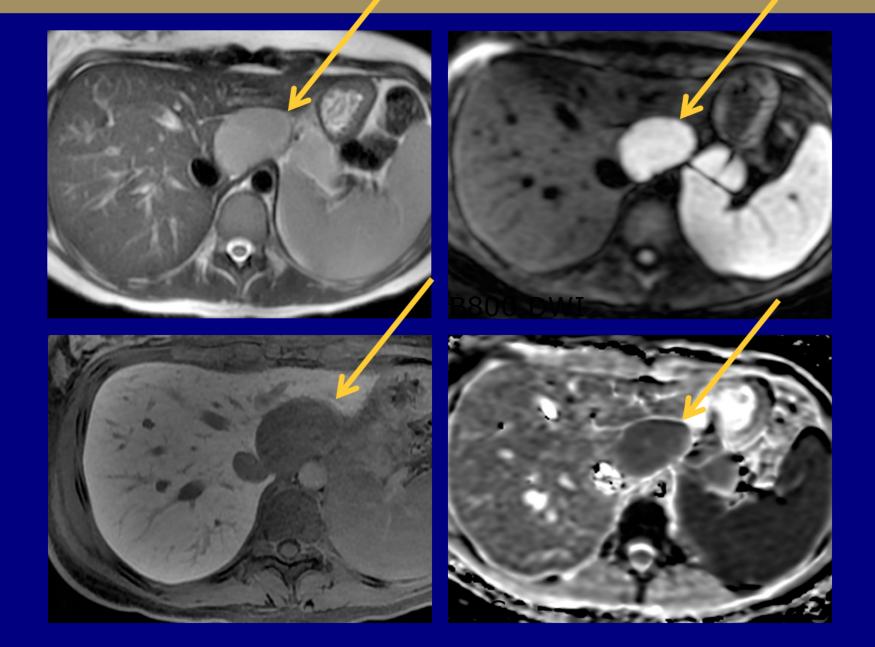


MR





MR



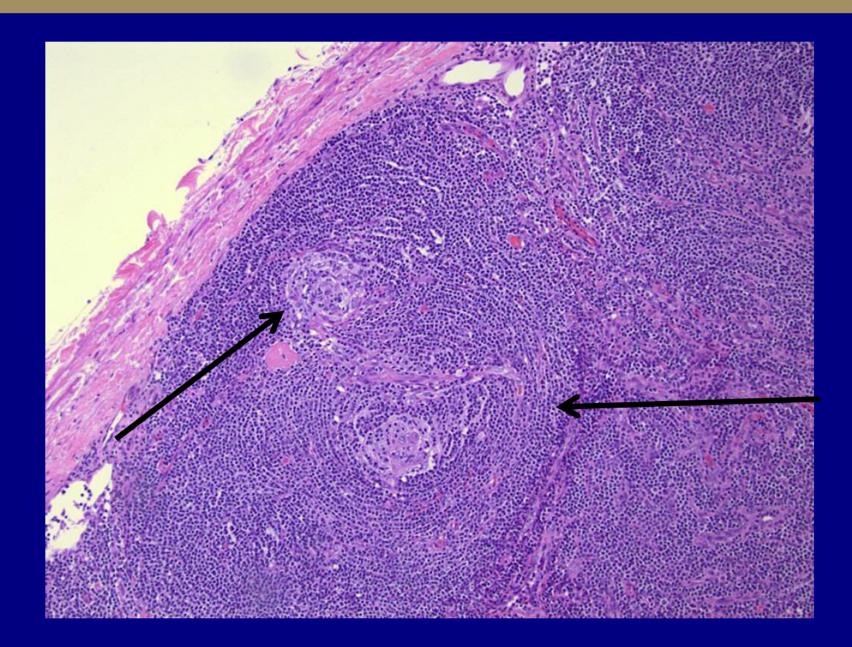


Gross Pathology





Histology









Castleman Disease

Golbahar Houshmand, MD Univeristy of Pittsburgh Medical Center Pittsburgh, PA



Many thanks to all of you for submitting such great cases! Have a safe trip home

From the staff of the American Institute for Radiologic Pathology