Best Cases of the AIRP

March 10 – April 4, 2014
Musculoskeletal Best Case
31-year-old woman with left thigh discomfort
Intramuscular Myxoma

Megan DeCecchis, MD
Naval Medical Center Portsmouth
Portsmouth, Virginia
MYXOMA
RADIOLOGY: QUADRAFECTA

• Small (<5cm) high water content intramuscular mass
• Mild enhancement - Peripheral rim/septae (thick- 43%) or mild diffuse pattern (57%)
• Small rim of fat-like tissue CT (25%), MR (71%)
• Edema surrounding mass MR (79%)
Neuroradiology Best Case
72-year-old man status post renal transplant for 5 months and on immunosuppressive therapy now with fever, gait disturbance, and rapidly progressive altered mental status. Broad-spectrum therapy for viral, bacterial, and fungal pathogens was unsuccessful.
Amoeba in cyst stage (red arrow) and trophozoite stage (blue arrow)
Amebic Encephalitis

Leah Carlson, MD
Emory University Hospital
Atlanta, Georgia
Genitourinary Best Case
74-year-old male nonsmoker presented with shortness of breath, chest pain, and a one-year history of significant weight loss. Medical history included hypertension and chronic kidney disease secondary to bilateral renal artery stenosis. Clinical examination was suggestive of a right pleural effusion.
Erdheim Chester Disease

Davinia Ryan, MD
Royal College of Surgeons in Ireland
Dublin, Ireland
PULMONARY AND MEDIASTINAL IMAGING
26-year-old Saudi man with a 4-week history of cough productive of brownish-yellow sputum
Cavity left lower lobe
Cavity left lower lobe
Airway connection to the cavity
Water-lily sign
Water-lily sign

Endocyst

Pericyst
Water-lily sign

pericyst

endocyst
Echinococcal Cyst

- Pericyst
- Endocyst
- Acellular endocyst wall
- Protoscolex
- Germinal layer
Ruptured Echinococcal Cyst

Bayan Al-Maghrabi, MD
King Faisal Specialist Hospital & Research Centre
Jeddah, Saudi Arabia
Cardiovascular Imaging
45-year-old woman with diabetes, diagnosed with pulmonary embolism approximately 4 months ago. Anticoagulation therapy was initiated, but filling defects demonstrated interval progression rather than resolution.
ECG-gated contrast-enhanced CT (MIP reconstruction) shows a filling defect at the pulmonary artery bifurcation, extending throughout all the right-sided branching arterial vessels which also appear expanded in caliber. There are prominent bronchial arterial collateral vessels consistent with chronic vascular compromise.
ECG-gated axial CT (top left) shows signs of right heart strain: enlarged right-sided cardiac chambers and interventricular septal reversal.

Axial CT (lung window) shows peripheral wedge-shaped consolidations in the right lung suspicious for evolving pulmonary infarctions.
Post-mortem right lung specimen, cut open, shows whitish soft tissue filling up the right main pulmonary artery as well as all proximal branching arterial vessels ramifying into the right lung parenchyma.
TOP LEFT: Low power H&E photomic shows cellular tissue filling multiple pulmonary arteries.

CENTER RIGHT: High power H&E photomic reveals tumor cells with pleomorphic features (arrows) on a stromal background.
Low power H&E photomic shows parenchymal infarction (subpleural triangular-shaped pink zone).
Pulmonary Artery Sarcoma

Ivan Diamond, MD
University of Toronto
Toronto, Ontario, Canada
Pediatric Best Case
41-year-old woman of Jamaican descent presented for routine anatomic ultrasound at 20 weeks gestation.
Chondrodysplasia Punctata

Ben Fine, MD
University of Toronto
Toronto, Ontario, Canada
Breast Best Case
56-year-old African American woman presented with swelling and pain in the right breast. The mass had been present for 2 months.
Diagnostic Right Mammogram
Malignant Phyllodes Tumor

Baldaassare Daniel Pipitone, MD
MetroHealth Medical Center
Cincinnati, Ohio
Gastrointestinal Best Case
37-year-old pregnant woman with multiple episodes of abdominal pain, fever, and shortness of breath.
Central dot sign
Caroli Disease

Shannon Tocchio, MD
University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania
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