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.
CT Localizer for acute right hip pain
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.
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.
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
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
Homogeneous – soft tissue density
Max SUV: 2.8
MRI T1: hypointense
MRI T1: Heterogeneous enhancement
Surgical removal
Heterogeneous mass
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 feeling 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

[Image of gastrointestinal pathology stages]
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
Gross Pathology
Histology
Castleman Disease

Golbahar Houshmand, MD
University 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