Best Cases of the AIRP

February-March, 2020
Musculoskeletal Best Case
CLINICAL INFORMATION

9-year-old male with knee swelling and mild pain after hitting during hockey
GOUT

Dr. Neda Najmi
Saint Louis University
Gastrointestinal Best Case
Clinical information

20 year old white male with 3 days of right lower quadrant pain.
Diffuse large B-cell lymphoma of the appendix

Marc Napoleone
Mount Sinai Hospital
Toronto, Ontario
Neuroradiology Best Case
Clinical Information

35-year-old male with progressive gait disturbance, nausea, and vomiting.
Liponeurocytoma

Roberto Kutcher, M.D.
University of Massachusetts
Worcester, Massachusetts
Pulmonary and Mediastinal
Best Case
Clinical Information

- 50F with tuberous sclerosis complex and a longstanding mediastinal cystic lesion
- Sudden-onset L pleuritic chest pain
- CTPA revealed significant increase in size and complexity of the mediastinal
CT 5-years prior shows a cystic lesion with small punctate and linear calcifications (blue arrows). Bilateral renal angiomyolipomas are present (yellow arrows).
New CT shows increase in size of mass with mediastinal shift to the right. Most of the mass is still fluid attenuation although there are areas of increased attenuation (red arrow) suggestive of hemorrhage. Punctate calcifications can be seen.
MRI shows a complex hemorrhagic mass causing mediastinal shift to the left. No enhancement is seen up to 6 minutes post contrast.
Gross surgical specimen demonstrates a large hemorrhagic multilocular cyst with multiple septations (orange arrow). The external surface is composed of dense fibrous tissue and adipose tissue (blue arrow). The cyst is filled with blood clot (green arrow).
High power microscopic image demonstrates a dilated lymphatic channel which is lined by a single layer of endothelial cells (blue arrows). Some of the lymphatic channels are filled with red blood cells (orange arrow).
Low power microscopic image also showing multiple dilated lymphatic channels, in keeping with a lymphangioma. Blood clot occupies the lumen of the cyst (orange arrow)
Low power microscopic image demonstrates multiple dilated lymphatic channels (blue arrows). There are also focal areas of atrophic thymic tissue (green arrows).
Lymphangioma with hemorrhage

Olivia Li, M.D.
Victoria Hospital, London
Cardiovascular Best Case
Clinical information

43 y.o. female previously well with new onset atypical chest pain while playing tennis. Transthoracic ECHO showed a “5 x 5 cm mass posterior to aortic valve apparatus”.
Extensively enhancing mass filling the right atrial chamber (with central low density), appears to involve right atrial wall and possibly inter-atrial septum.
T2W 4-Chamber Cardiac MRI

Diffusely high signal intensity lesion with scattered vascular channel voids: the so-called “salt and pepper” appearance.
Resected Right Atrial Mass

Surface & cut section images of gross specimen (resected from wall of right atrium and interatrial septum) shows dense fleshy yellow tissue, scattered vessels with patchy hemorrhage, & central gelatinous core.

At surgery, mass occluded SVC/RA junction, compressed right main pulmonary artery, and was fed by circumflex artery; right atrial reconstruction was required.
H & E stain photomicrographs

Classic trabecular pattern of fibrovascular stroma, "Zellballen" (spherical aggregates of plump chromaffin cells), and scattered vascular spaces
Paraganglioma of the Right Atrium

Jisoo Kim, M.D.
Brigham and Women’s Hospital
Boston, Massachusetts
Pediatric Best Case
Clinical information

Patient is a 14-month-old Caucasian male without any significant medical history who presented with increasing abdominal girth
Malignant Rhabdoid Tumor

Francis Fortin
CHU Sainte-Justine
Montreal, Canada
Breast Best Case
Clinical information

40-year-old woman with abnormal screening mammogram. No personal or family history of breast cancer.
US performed
Core biopsy and subsequent excision performed
Pathology
Intraductal Papilloma with Atypia

John Mistrot, MD
Baylor Scott and White
Temple, Texas
Genitourinary Best Case
Clinical information

23 year old male with acute onset right testicular/groin pain.
Testicular Torsion

Adam Jackson, MD
Madigan Army Medical Center
Joint Base Lewis-McChord, WA