Chest X-ray Interpretation

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Disclosure

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Consultant Fees/Honoraria
Bayer HealthCare; Boehringer Ingelheim; Daiichi Sankyo, Inc.; Johnson and Johnson; MedIQ; Roche; sanofi-aventis U.S. Inc.; Servier Pharmaceuticals, ZS Pharmaceuticals, Roche.

Data Safety Monitoring Board
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The Chest X-Ray: Principles of Reading

1. The bones
2. The lungs
3. The heart
4. The vessels
5. Miscellaneous such as pacemakers, catheters, etc.
Normal chest xray
Is this lateral chest x-ray from the same patient as the last film—the PA film?
1. Yes, it is the same patient
2. No, it is not the same patient
3. Yes, it is the same patient but a different view
4. No, it is not the same patient; this patient is a female.
1. Is the Aortic knob enlarged?

2. Is the heart enlarged?

3. Are the lungs congested?
A. Is the aortic knob enlarged?
   1. yes  2. No

B. Is the heart enlarged?
   1. Yes  2. No

C. Are the lungs congested?
   1. Yes  2. No
Marked cardiomegaly: Which heart disease could cause the enlarged heart?
A. Ischemic cardiomyopathy
B. Constrictive pericarditis
C. Aortic stenosis
D. Atrial septal defect
E. Atrial fibrillation
PLEURAL EFFUSION
PERICARDIAL EFFUSION
Right and left pleural effusion
What is abnormal in this chest xray?
This patient does not have one of the following diseases. Which is the wrong one?
1. Large pericardial effusion
2. Dilated cardiomyopathy
3. End stage aortic insufficiency
4. Ischemic cardiomyopathy with CHF
5. Athlete’s heart
PNEUMONIA
LUNG ABCESS
LLL infiltrate
RML infiltrate
Pneumonia and pleural Effusion, right sided
Pneumonia bilateral; ? of CHF as well.
Lung abscess
PULMONARY EDEMA
CANCERS – LUNG AND METASTATIC
Lung cancer
COPD
COPD
RIB NOTCHING – WHAT IS THE DIAGNOSIS?
Rib notching

What is the diagnosis?
1. Dissection of the aorta
2. Acute myocardial infarction
3. Coarctation of the aorta
4. Mitral stenosis
5. Constrictive pericarditis
ANEURYSMS – DISSECTING AND ATHEROSCLEROTIC
Dissection of the Aorta
DEVICES
What is this?
Case # 1: A 75 year old man with dyspnea on exertion, a recent syncopal episode, and a loud systolic murmur at the right sternal border.
DO YOU SEE ANYTHING UNUSUAL IN THIS CHEST XRAY
Silicone
Can the cardiac specialist learn anything from the abdominal x-ray?
Case # 2: An 82 year old man is admitted to the hospital for severe right flank pain. Here is his abdominal x-ray on admission.
Case # 3: A 40 year old man comes to the ER complaining of severe central chest pain that is worse when he lies down or takes a deep breath. He has had nasal congestion, cough, and fever for one week.