

IMAGES OF CARDIOLOGY

APPROACH TO INTERPRETATION OF CHEST X-RAY

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Radiological examination of chest by doing X-ray chest is now considered as part of initial screening of the patients. It is a cheap, easily available and cost effective investigation which gives quite important information in the management of clinical patients. Following approach may be recommended for the interpretation of x-ray chest which may be used by trainee doctors appearing for their specialty examination. This approach may be labeled as "chest radiograph assessment using mnemonic ABCDEFGHI".¹

A. AIRWAY:

Use "PIER". First look for the position of the patient whether supine , erect, AP/ PA/ lateral view. Look for whether it is inspiratory film or not , by counting number of ribs (one should be able to see 10-11 ribs). Then evaluate for well exposed film. Lastly, look for any rotation i.e. space between medial clavicle ends and vertebral column should be equal. Look for any tracheal deviation

B. BONES AND SOFT TISSUES:

Evaluate bone patency and soft tissues for any

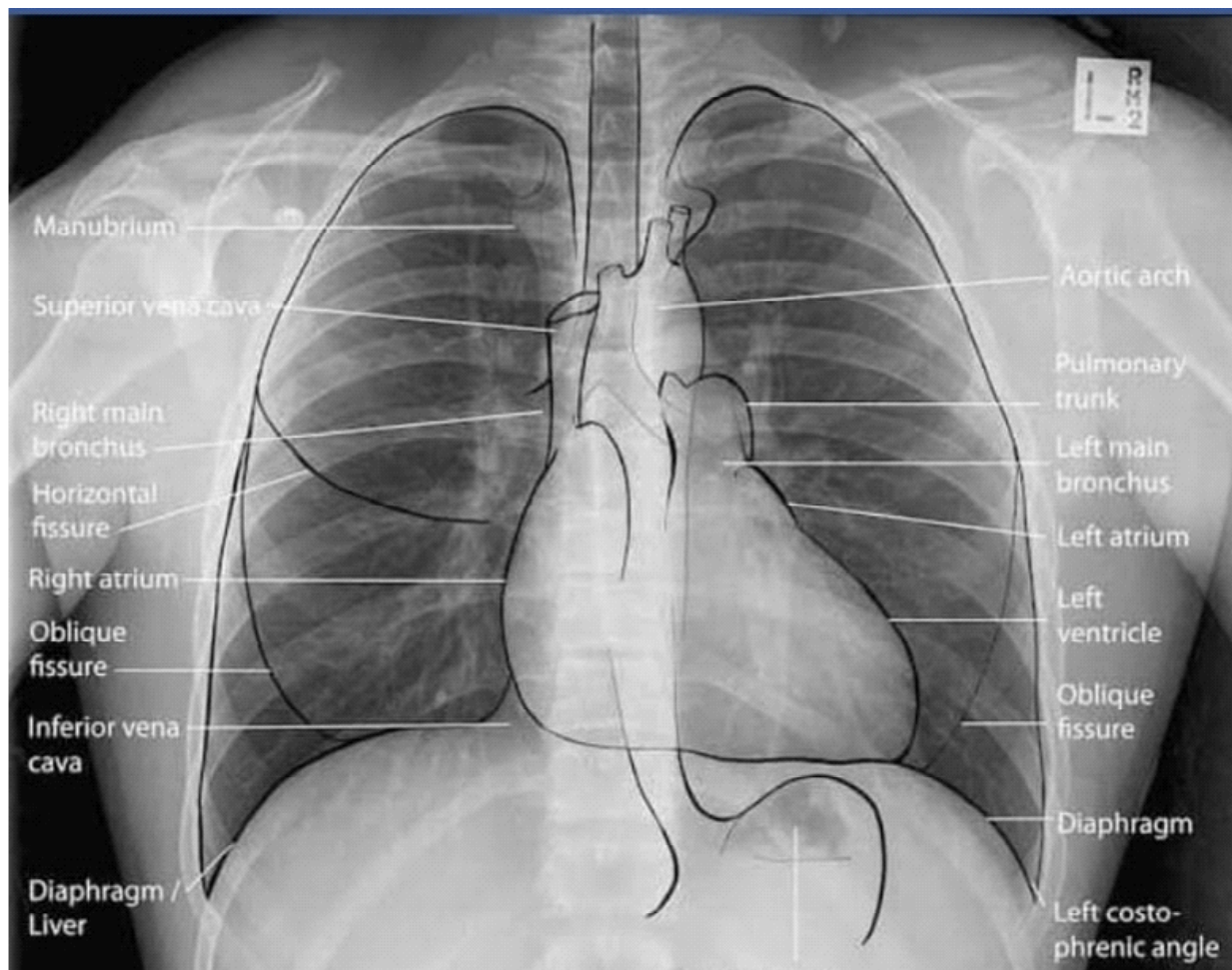


Fig. no. 1: Anatomical landmarks on X-ray chest

emphysema or swelling.

C. CARDIAC SHADOW:

Evaluate heart size. The size should be less than 50% on PA view and less than 60% on AP view. Look for cardiac shape / borders, calcification and any prosthetic valves.

D. DIAPHRAGM:

Look for any diaphragmatic flattening or eventration/ elevation. Also look for stomach bubble for free gas.

E. EFFUSIONS:

Look for blunting of costo-phrenic and cardio-

phrenic angles which indicate presence of pleural effusion etc.

F. FIELDS, FISSURES AND FOREIGN BODIES:

Look for lung infiltrates, masses, consolidation, pneumothorax etc.

Look for pulmonary vascular markings and any peripheral pruning.

Look for presence of any ETT, NG tube, pacemaker leads , central lines etc.

Look for sternal clips etc

G. GREAT VESSELS / GASTRIC BUBBLE:

Check for Aortic knuckle and dilatation. Also

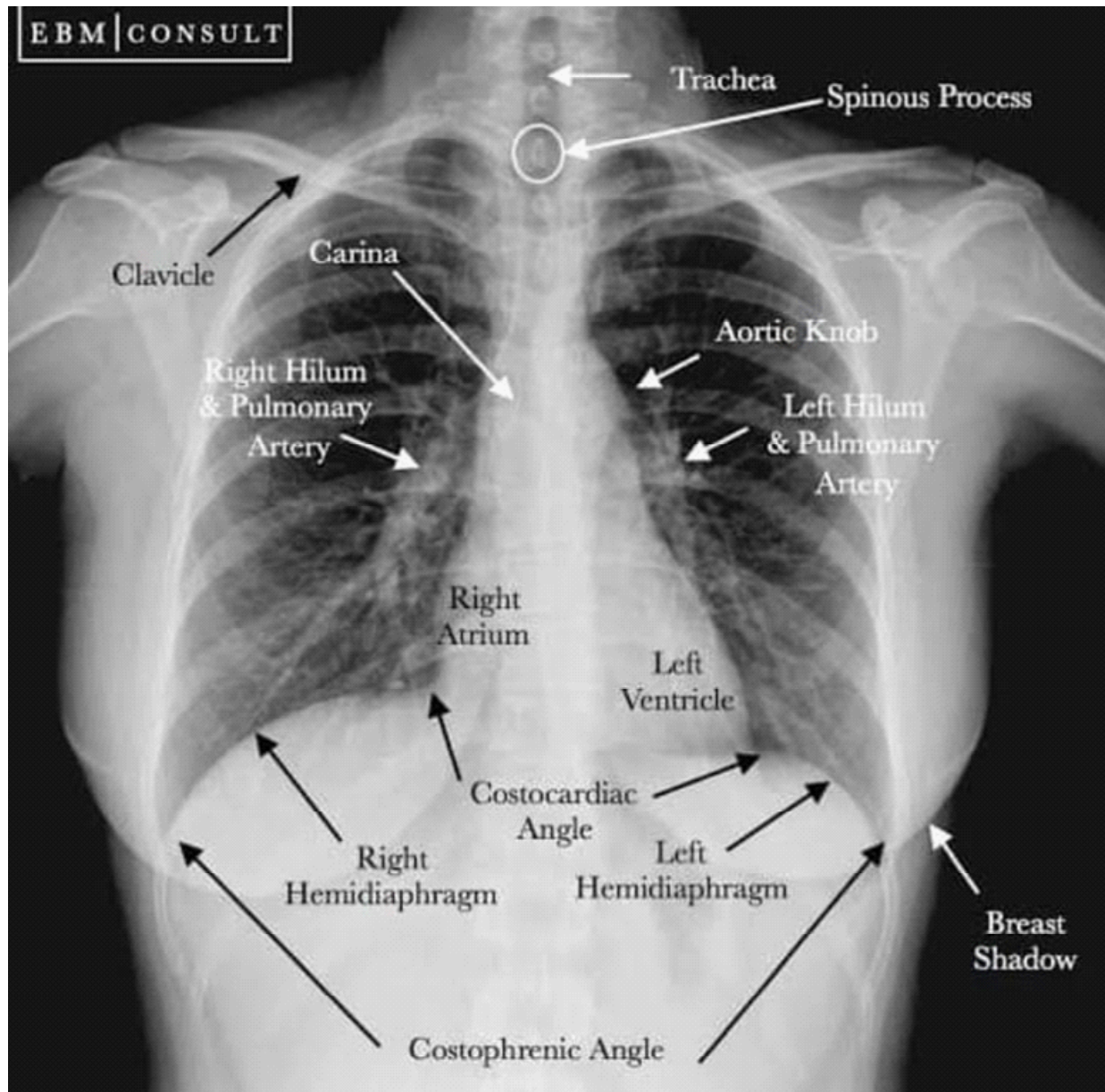


Fig. no. 2: X-ray chest PA view

look for size of pulmonary artery and central plethora. Look for gastric bubble as well.

H. HILA AND MEDIASTINUM:

Evaluate hila on both sides for lymph nodes, calcification or masses. Look for widening

of mediastinum to rule out aortic dissection, retrosternal goiter/ thymus etc.

I. IMPRESSION:

After following all the above approach , a final impression should be made.²

ACKNOWLEDGEMENT:

I am thankful to my parents for helping me achieve this mile stone.

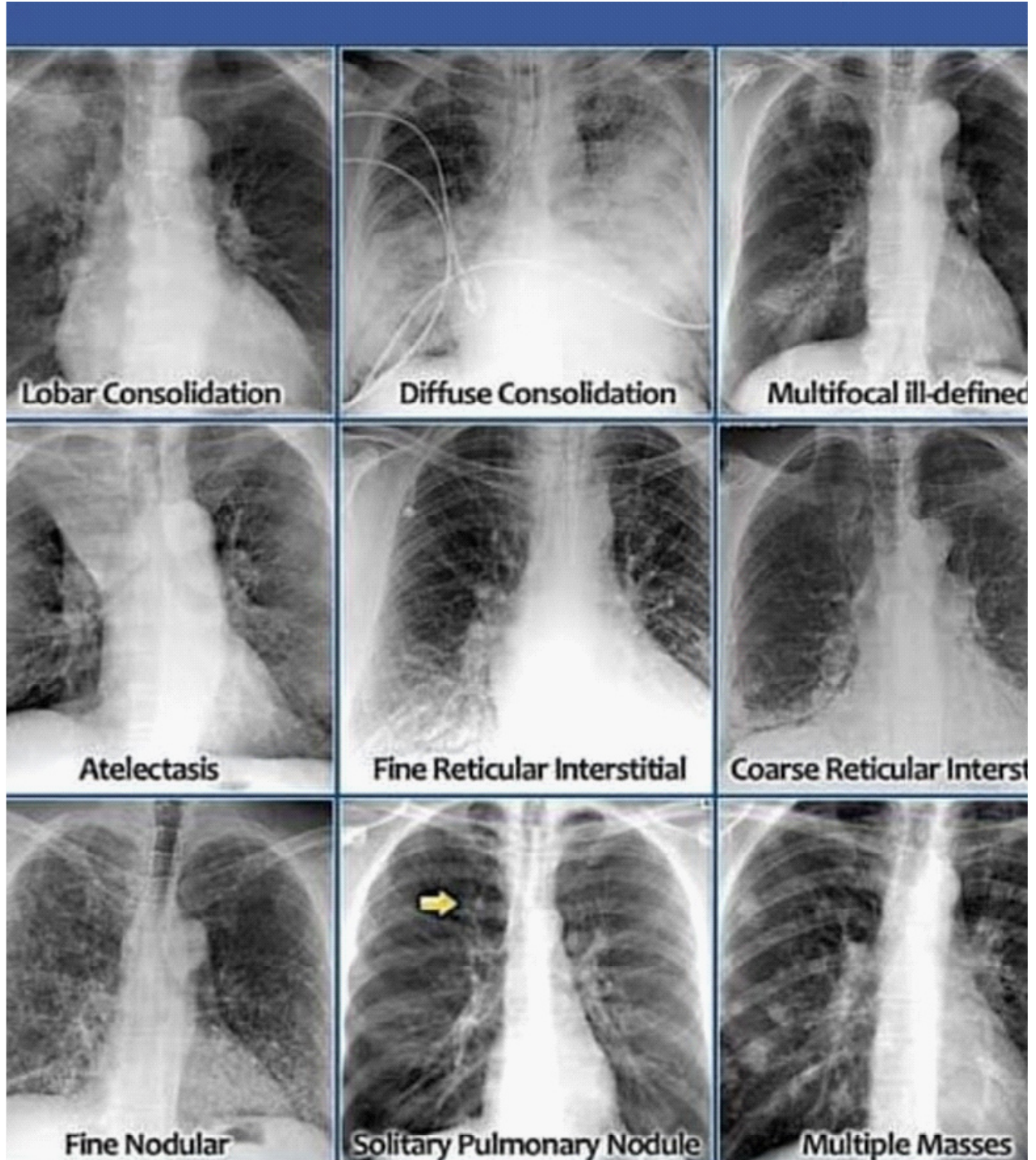


Fig.no. 3 Different common pathologies noticed on X-ray chest



References:

1. Daniel J Bell. Chest radiograph assessment using ABCDEFGHI. Radiopaedia census. 16 Jun 2021.
2. The ABCDEFGHI”s of chest radiograph interpretation. Tips and tricks. June 8.2016.