



Round : Radiology

Group no : A4

Done By : Batool ALzubaidi

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it, primarily concentrated in the top-left and bottom-right corners.

MSK CASES

DR. ARAA BANI MELHEM

CASE 1

+ X-ray of lower right leg

+ Anterior -posterior



+ Lateral



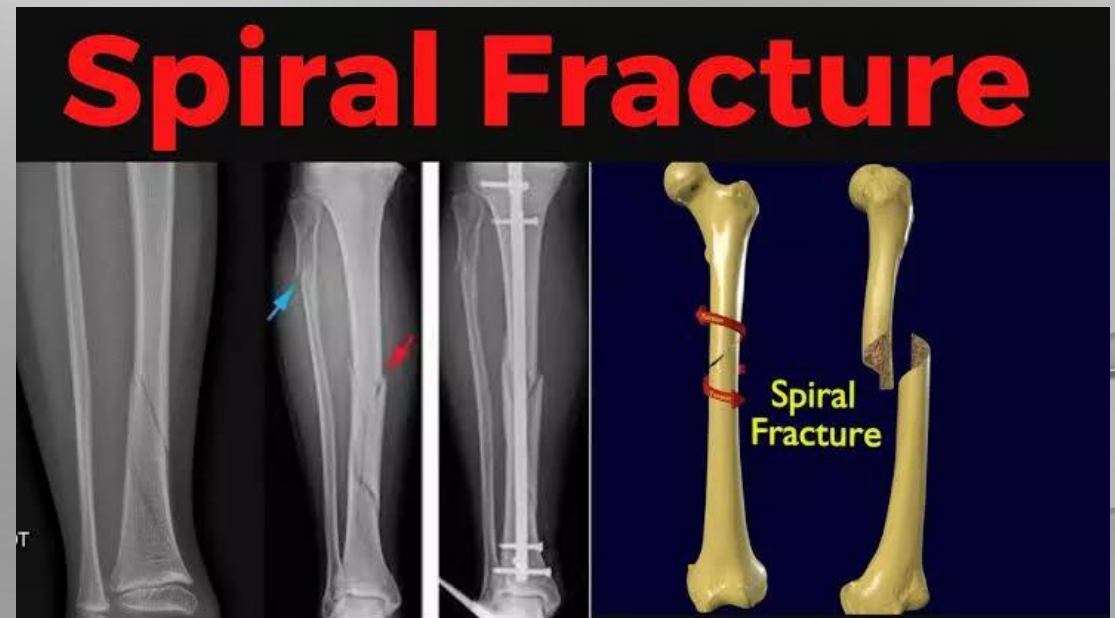
ANSWER

↩ In tibia

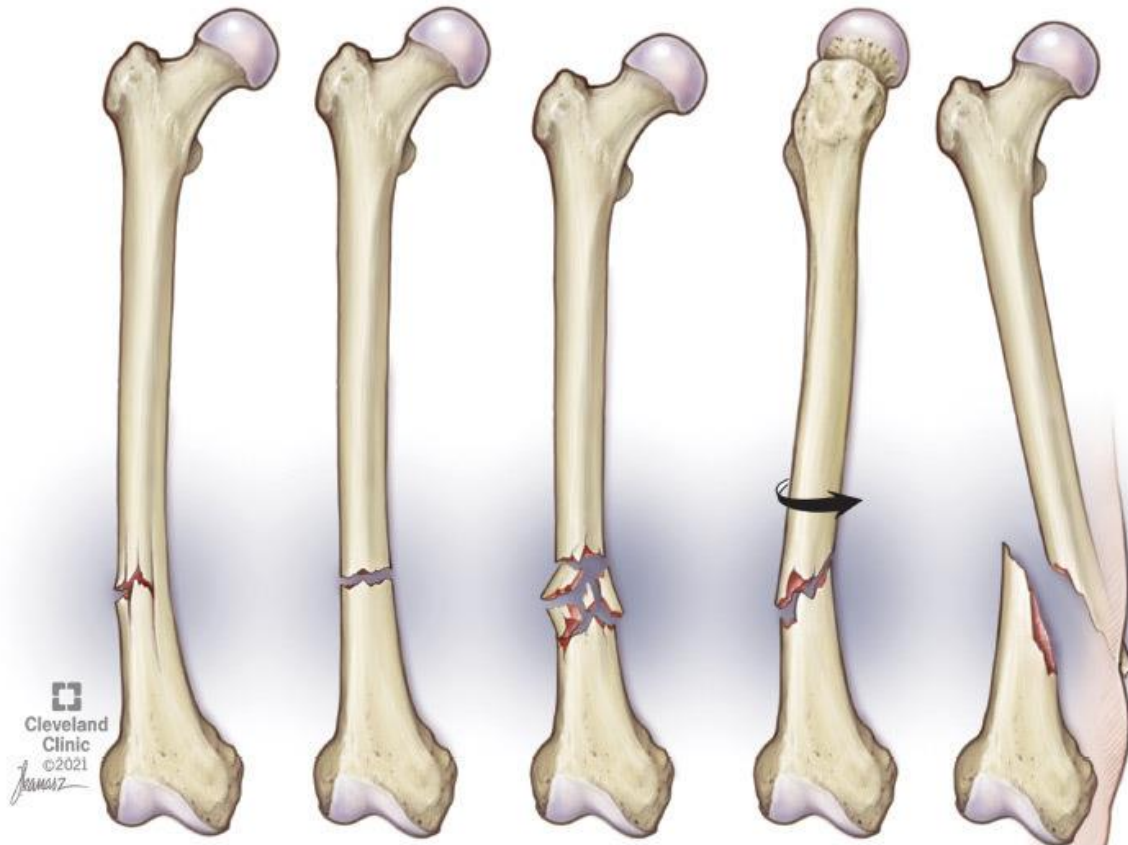
Spiral fractures are complete fractures of long bones that result from a rotational force applied to the bone.

Spiral fractures are usually the result of high energy trauma and are likely to be associated with displacement

✚ بصور ال MSK دائما تبع مع ال cortex of the bone ضل
ماشى مع ال line عشان لو في discontinuity تقدر تلقطها



Types of bone fractures



✦ Complete fracture ← Transverse
✦ Incomplete fracture ← Greenstick

✦ Multiple fracture lines with fragments

Comminuted

Spiral

✦ Rotational fracture, usually displaced

Compound

✦ Dislocation reaches soft tissues and skin

CASE 2

18 month old , calf pain

↳ Femur X-ray



OSTEOSARCOMA

-Initial image showed a highly aggressive lesion in the distal femur, with a **Codman's triangle**, **sunburst** periosteal reaction, and **new bone formation**

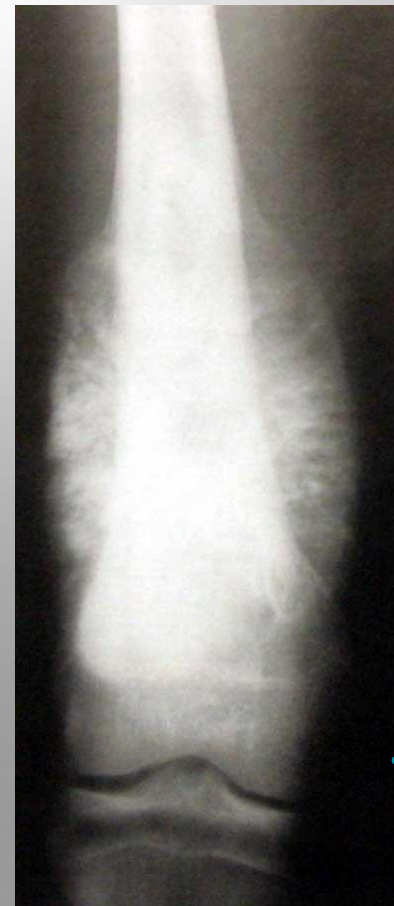
→ Aggressive lesion

- **Bone scan** shows (not unexpectedly) intense metabolic activity, and

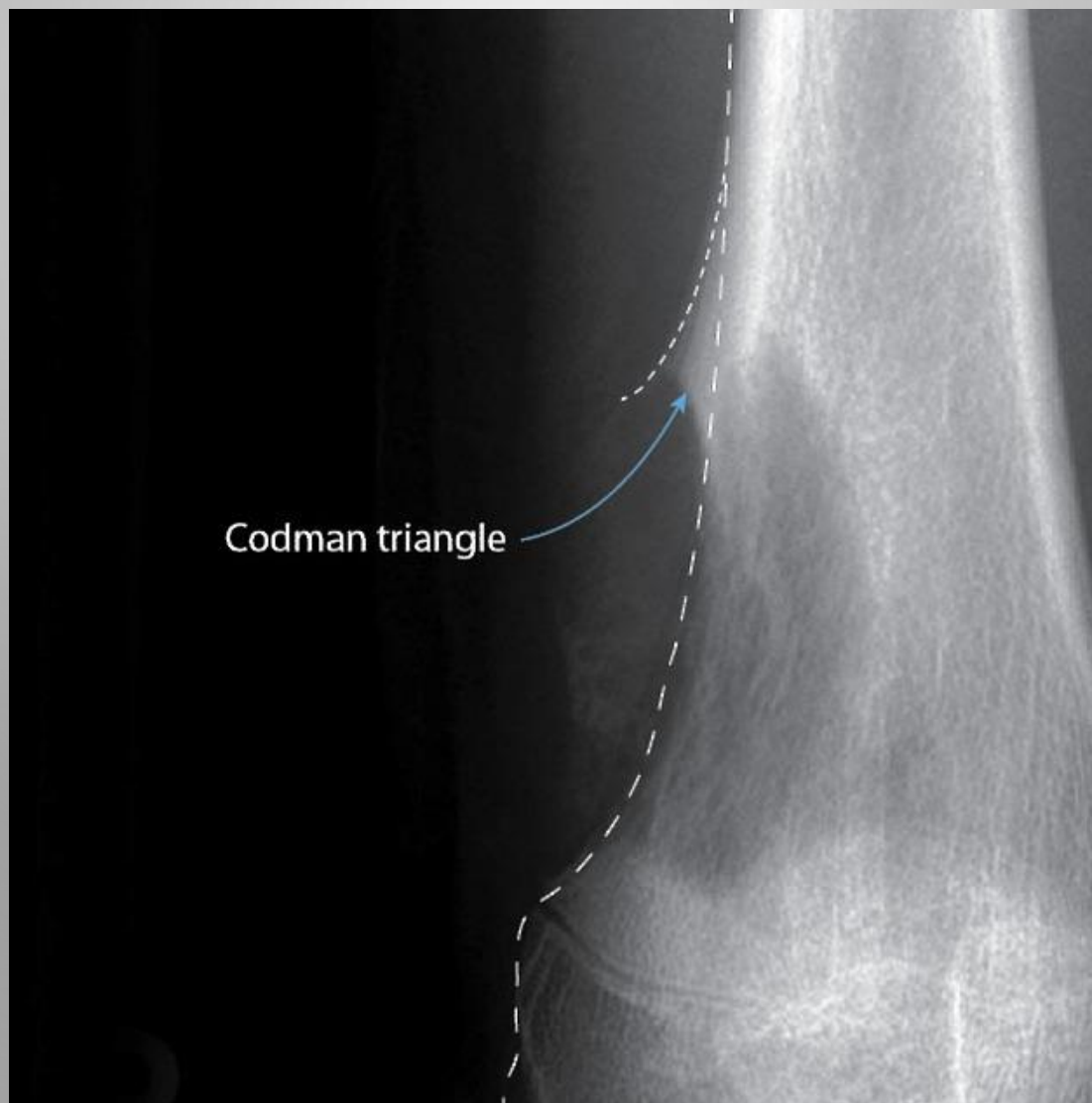
MRI verifies the intra-osseous extent of the tumor

- DDx:

Osteosarcoma, metastasis; less likely Ewing's sarcoma, lymphoma



→ Hyperactive lesion (high metabolic rate, highly vascular) » between inflammation and malignancy



Codman triangle

CASE 3

70 year old, back pain

✚ Skull X-ray, lateral view



✚ Lumbo-sacral spine X-ray, lateral view



CONTINUED

↪ Chest X-ray, AP



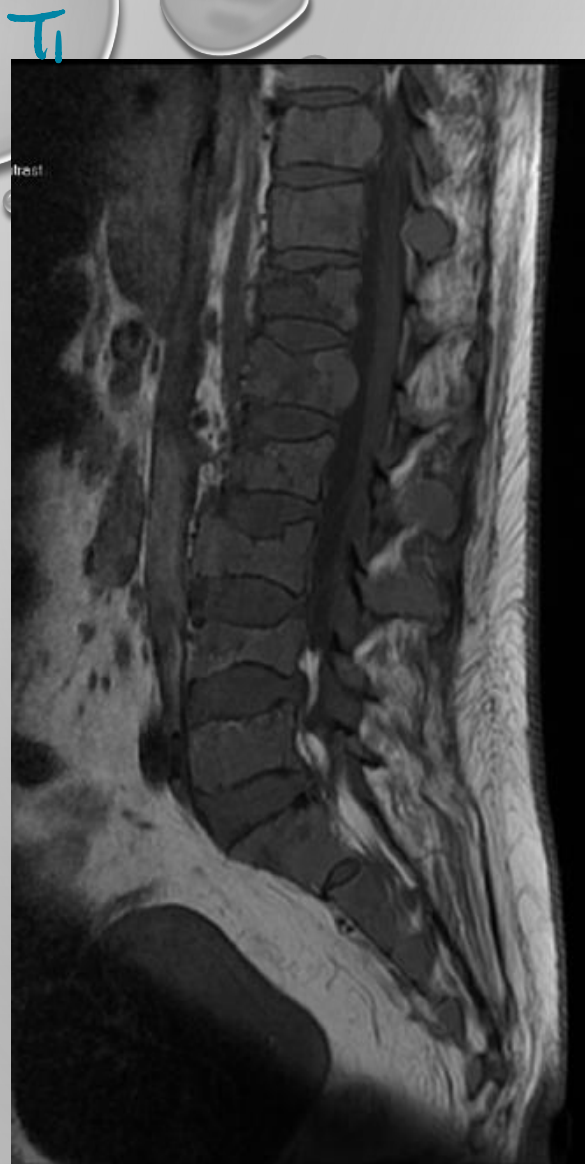
↪ Obliterated right costophrenic angle

MULTIPLE MYELOMA

- Multiple punched out lytic lesions are best seen in the skull vault. The entire skeleton is osteopenic, with multiple spine compression fractures.
- Vascath (central venous catheter) in situ and bilateral pulmonary opacities and pleural effusions.

CONTINUED

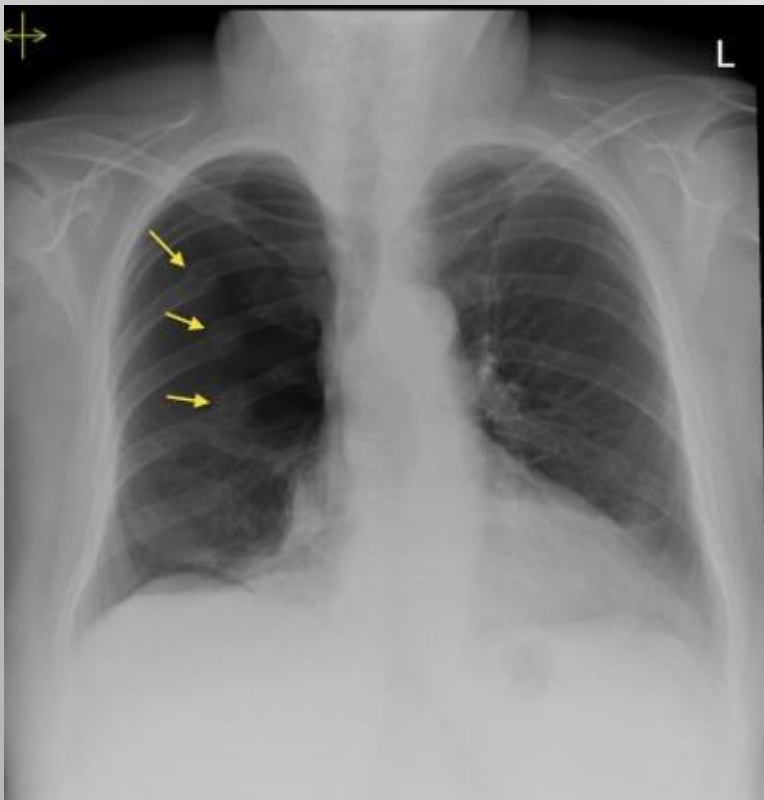
+ Low bone intensity on both sequences » osteoporosis



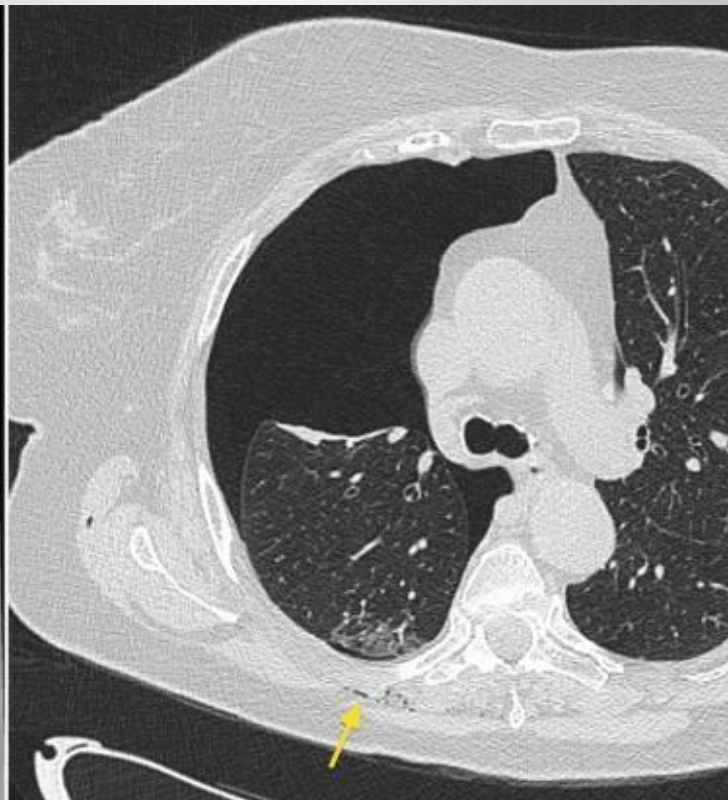
MULTIPLE
PATHOLOGICAL
FRACTURES
WITH DIFFUSELY
LOW SIGNAL
INTENSITY
MARROW IN T1-
AND T2-
WEIGHTED
SEQUENCES.

CASE 4

✚ Chest X-ray frontal view



✚ Chest ct, axial, lung window



✚ Chest ct, axial, bone window



✚ Subcutaneous emphysema

ANSWER

Right sided pneumothorax, due to ribs fracture

This woman suffered a fall and arrived in the ED very breathless.

CXR shows several right-sided rib fractures (arrows) and a large right pneumothorax (note the hyperlucency and also the pleural line, best seen at the lower lateral aspect of the collapsed lung). CT shows some surgical emphysema (arrow, middle image) adjacent to the rib fractures

CASE 5

✚ CT, bone window, coronal cut





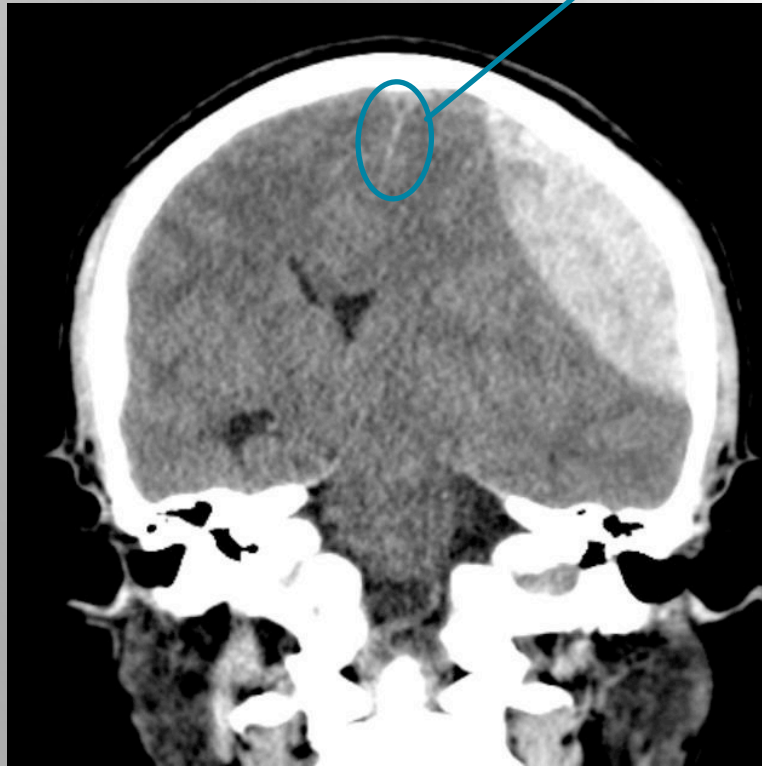
ANSWER

Left acetabular fracture



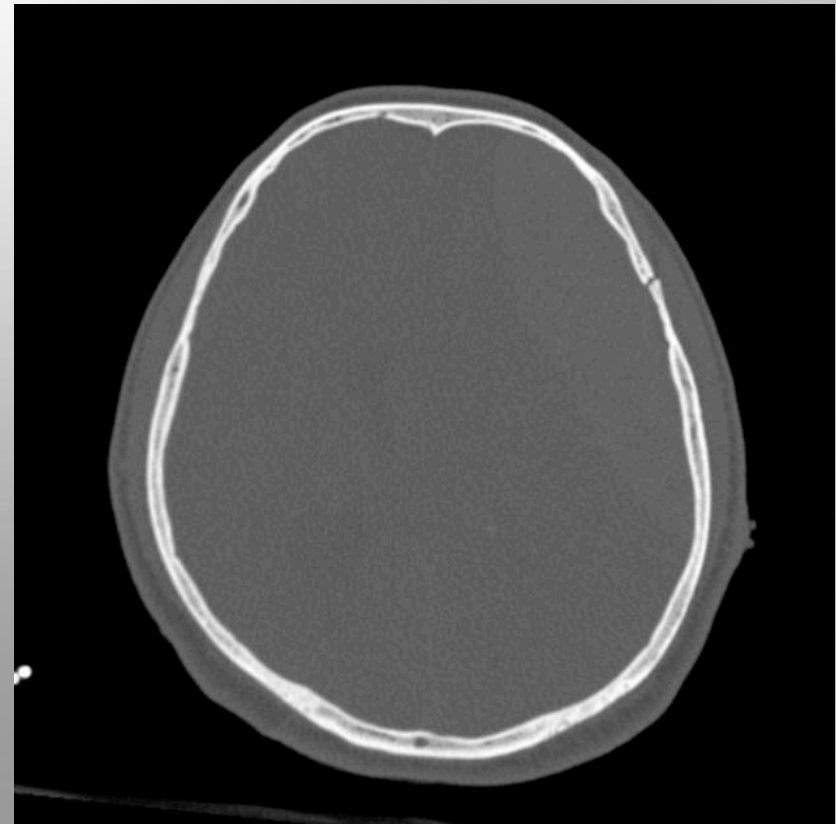
CASE 6

✚ Coronal



Falx cerebri

✚ Axial



ANSWER

A large **biconvex** epidural hematoma in the left frontotemporal region causing mass effect, **midline shift and sub-falcine herniation**.

There is a **linear fracture** in the left frontal bone

→ Falx cerebri (white line) is pushed to the opposite side

**CASE #7:
9 YR OLD BOY,
CC: LEFT SHOULDER
PAIN AND SWELLING**

👉 Left shoulder x-ray



ANSWER?: SBC WITH FRACTURE

Simple bone cyst/ solitary/ unicameral

- Before the age of 20 years
- Mc site is proximal humerus followed by proximal femur

- Expansile
- Metaphyseal
- Fallen fragment sign → cortical fragment of pathological # settles in most dependant position
- Hinged fragment sign → fractured fragment doesnot separate from adjacent cortex



Hinged fragment sign →
fractured fragment doesnot
separate from adjacent cortex

TONY SCARIA 2010 KMC

Simple bone cyst

Mc site → proximal humerus



2nd most common site → femur

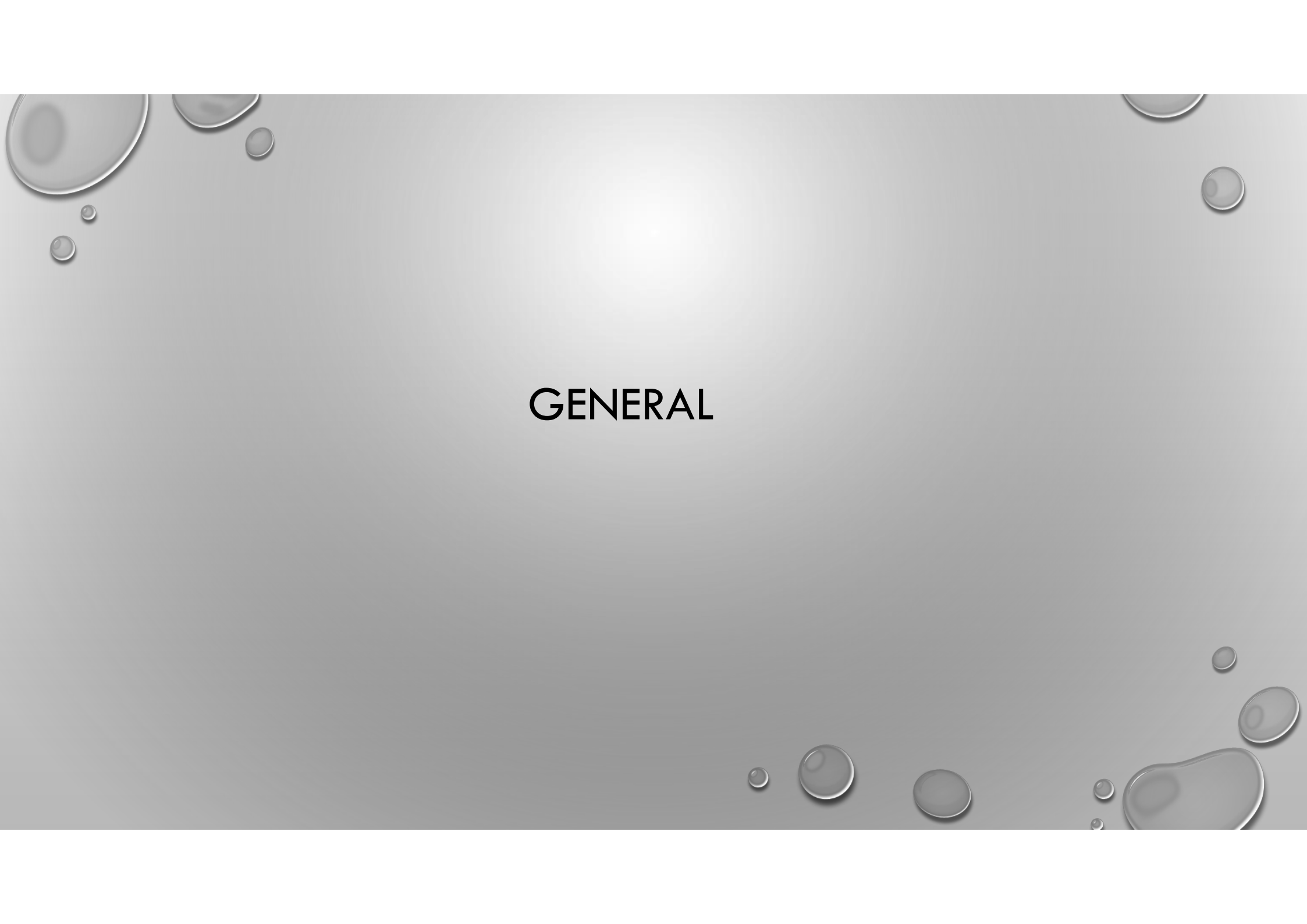


TONY SCARIA 2010 KMC

Hinged fragment sign



TONY SCARIA 2010 KMC

The image features a light gray background with a subtle gradient. In the top-left and bottom-right corners, there are several realistic water droplets of varying sizes, some overlapping. The word "GENERAL" is centered in the middle of the image.

GENERAL

✈ Barium enema

CASE 8



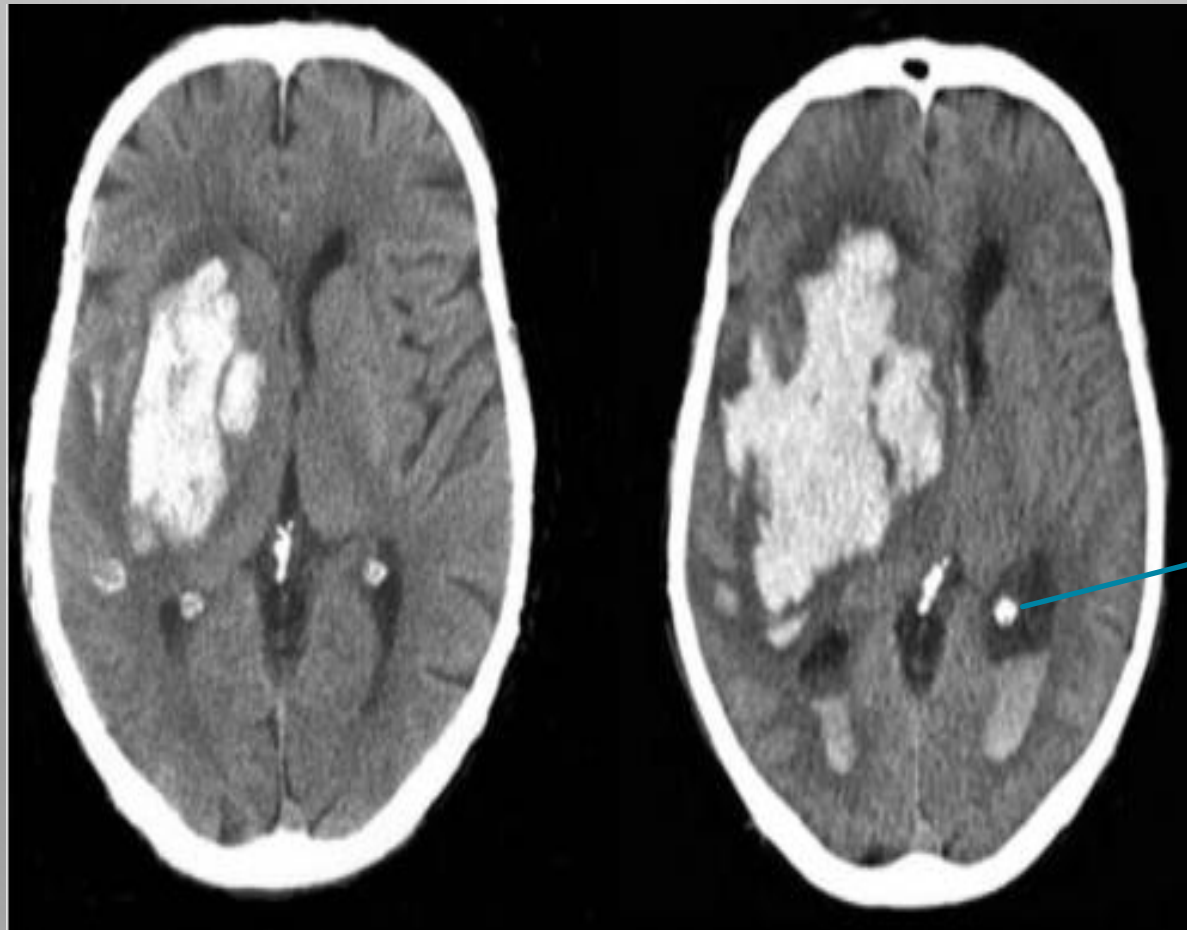
ANSWER

Intussusception claw
sign

⚡ Meniscus sign ⚡

CASE 9

✈ Axial CT scan



Normal calcification

ANSWER

✚ With edema, mass effect (midline shifting), right lateral ventricle is compressed

Intracerebral
hemorrhage with
intraventricular
extension

CASE 10

✦ Axial chest ct, mediastinum window, with contrast





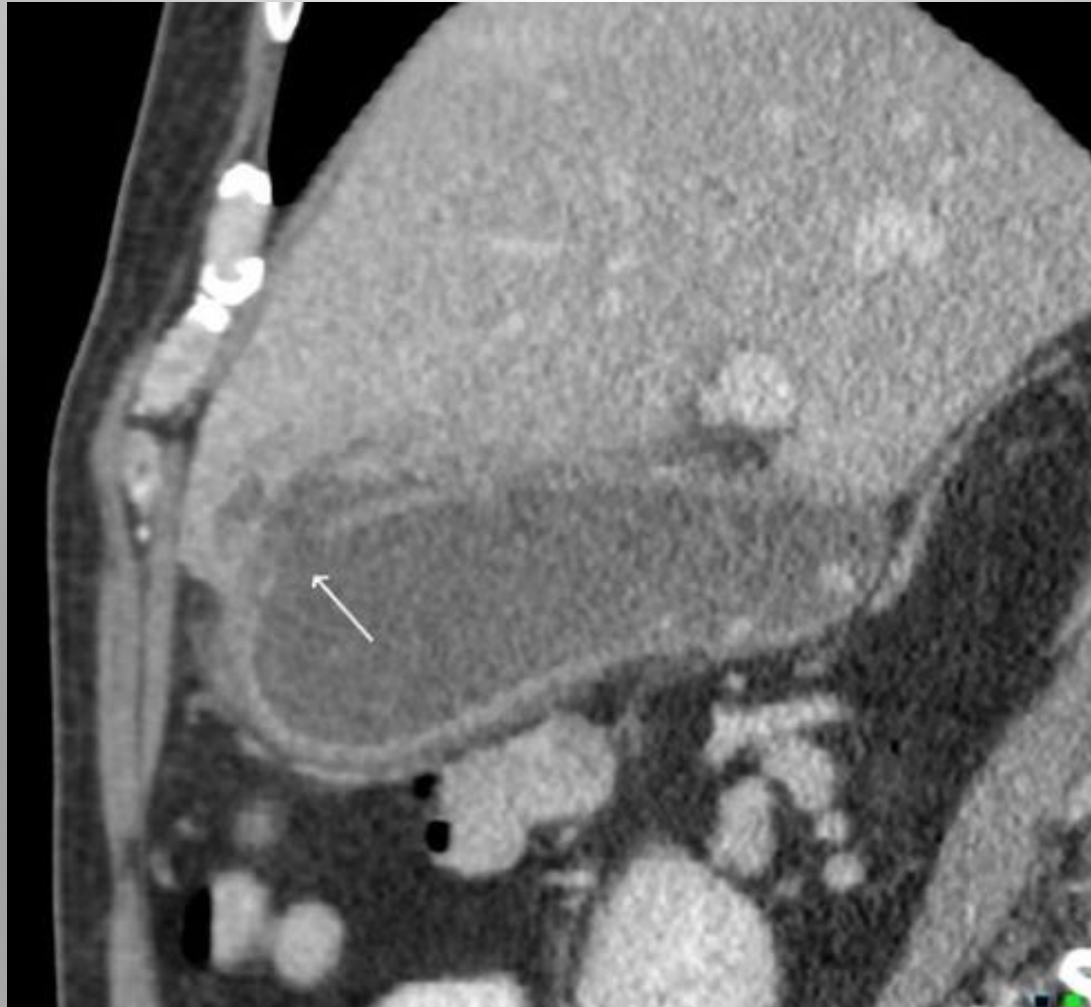
ANSWER

Descending thoracic aorta dissection



CASE 11

✚ Coronal abdominal CT



⚡ Distended gallbladder, thickened wall, edema

Acute Cholecystitis with perforation

CASE 12

+ Coronal abdominal CT

+ Tubular blind ended structure,
from cecum



ANSWER

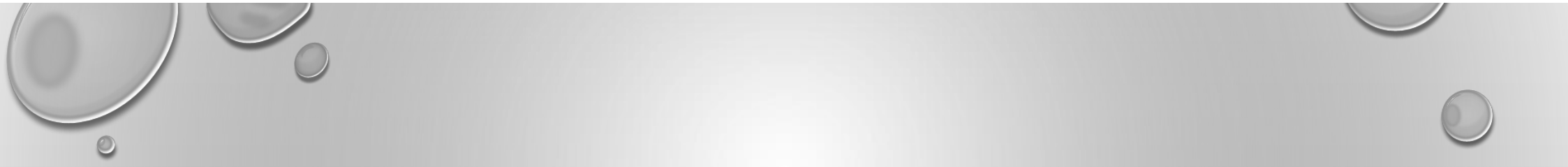
Acute appendicitis,
with appendicolith

↳ Stone in appendix

CASE 13

✚ Axial abdominal ct





ANSWER

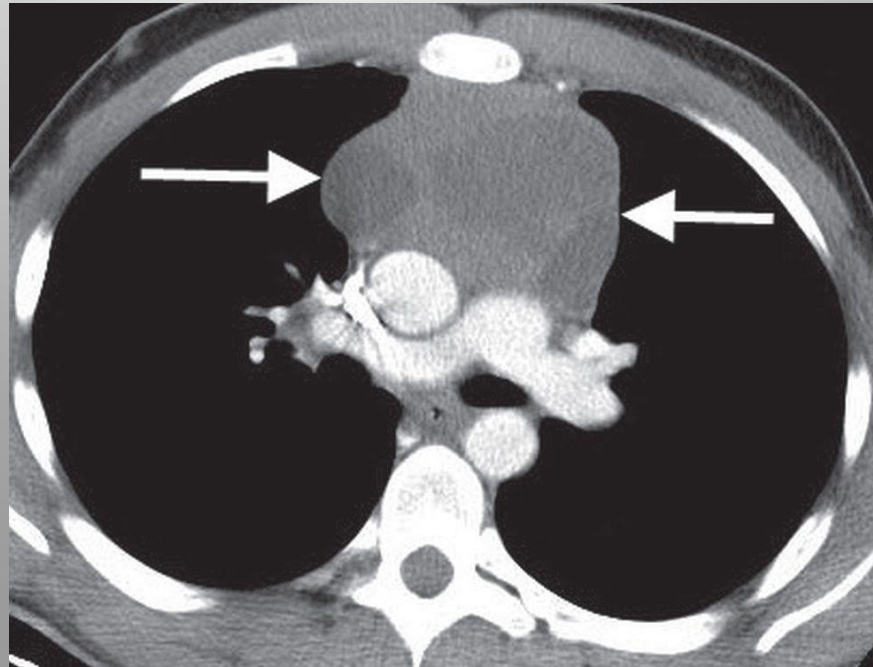
+ Pancreas is enlarged with fat stranding around it

Acute pancreatitis



CASE 14

✚ Axial chest ct



ANSWER

Anterior Mediastinal
mass

Anterior Mediastinal Mass

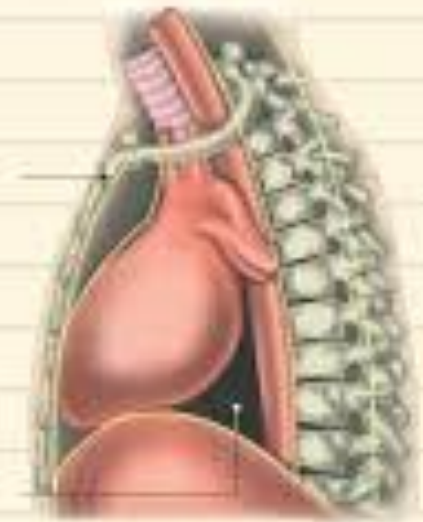
4Ts

Thymoma

Teratoma

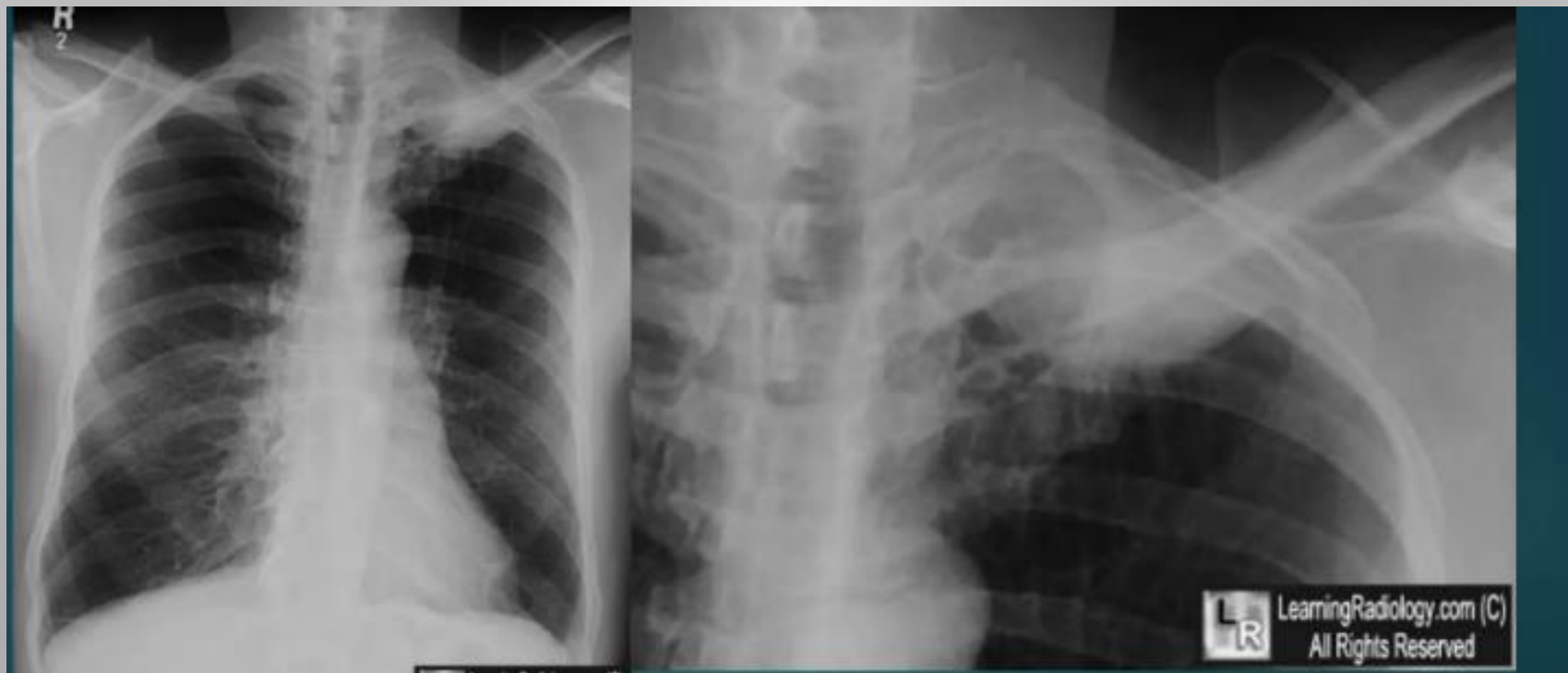
Thyroid goiter

"Terrible" Lymphoma



CASE 15

+ Chest X-ray, frontal view



ANSWER

Pancoast Tumor of the left lung

↳ In the apex

The background is a solid gray with a subtle radial gradient, being lighter in the center and darker towards the edges. In the four corners, there are several realistic water droplets of various sizes, some overlapping, with highlights and shadows that give them a three-dimensional appearance.

THANK YOU