

Thoracoabdominal Trauma

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Chief Medical Officer, vRad

Medical School: University of Arizona HSC
Internal Medicine Residency: Dartmouth-Hitchcock MC
Radiology Residency: University of Arizona HSC
MSK/Body MR Fellowship: University of Arizona HSC

3 years Emergency Physician
2 years Radiology private practice
2 years Assistant Professor, University of Arizona HSC
20 years Virtual Radiologic

Licensed to practice in all 50 states



Thoracoabdominal Trauma

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Ascending aortic extravasation

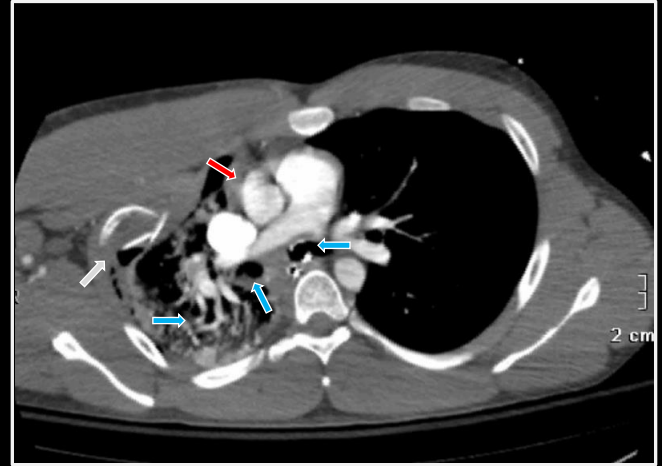
Anterior rib fractures

Right hemithorax volume loss

Bronchus intermedius fluid

Left mainstem intubation

**Aortic laceration and
mainstem intubation**



Ascending aortic extravasation

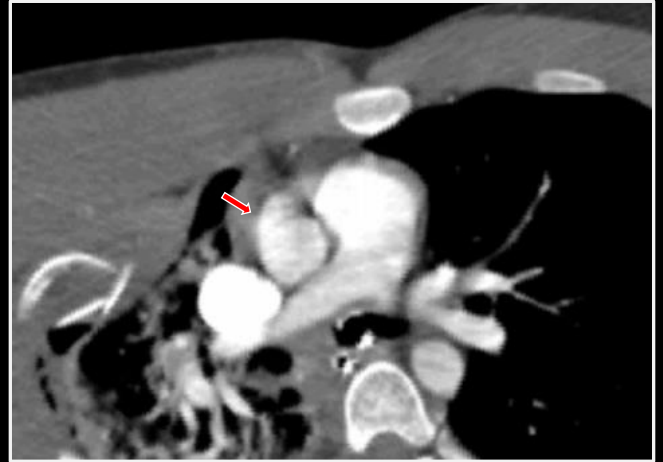
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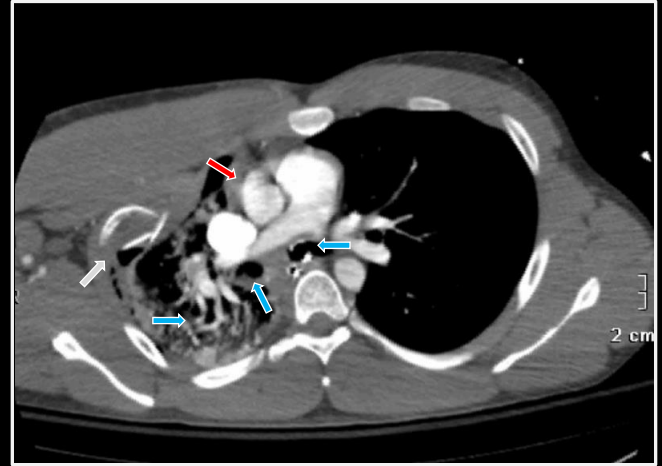
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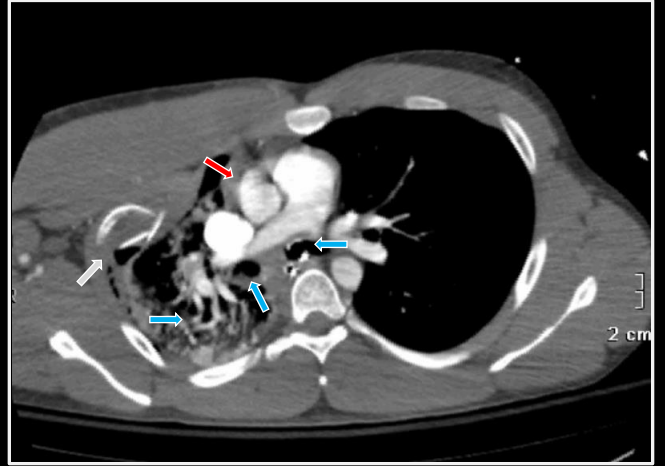
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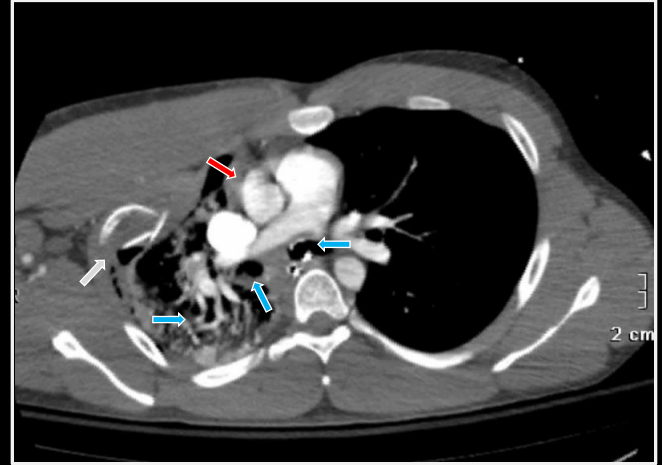
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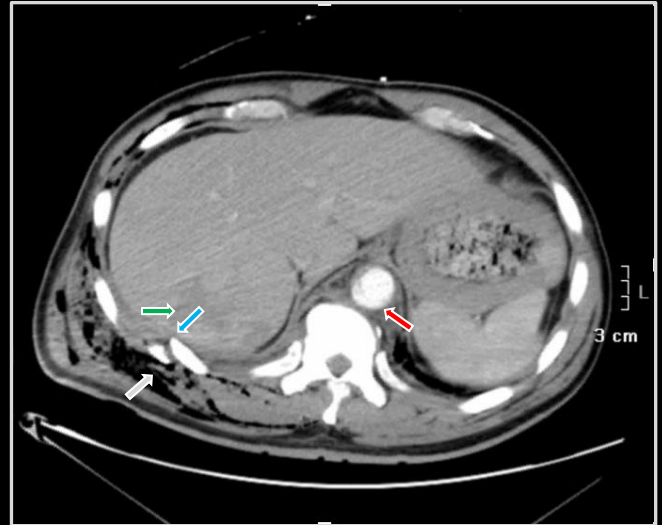
Posterior rib fractures and
extrathoracic gas

Liver hypodensity

Diaphragm defect

Focal aortic defect

**Aortic laceration and
hepatic contusion**



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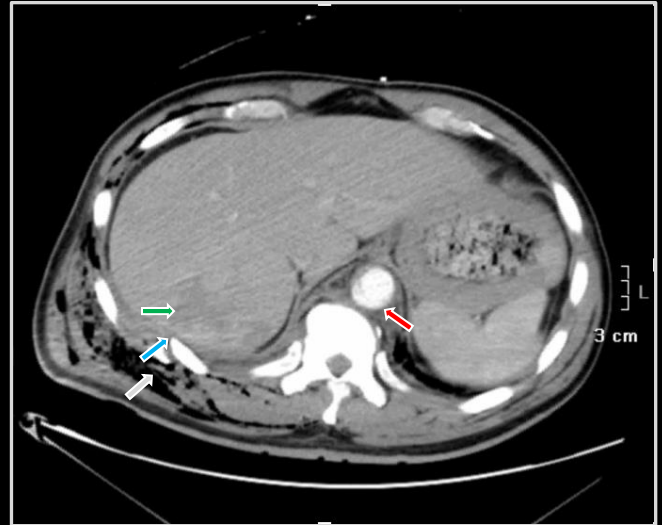
Posterior rib fractures and
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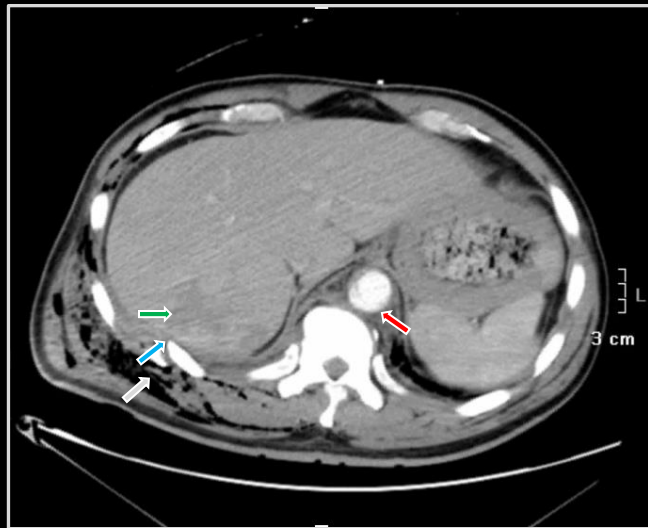
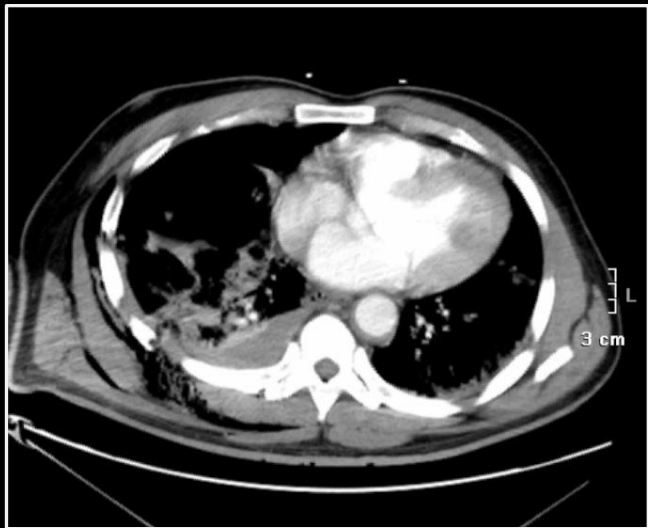
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Diaphragm defect

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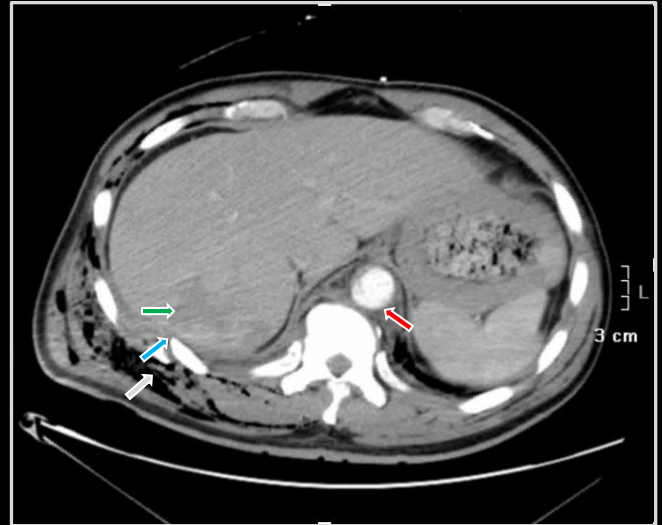
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Vertebral compression with pedicle fractures

Aortic defect

Aortic laceration

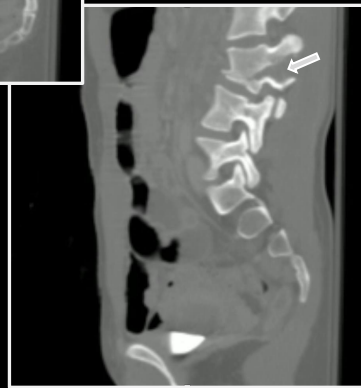
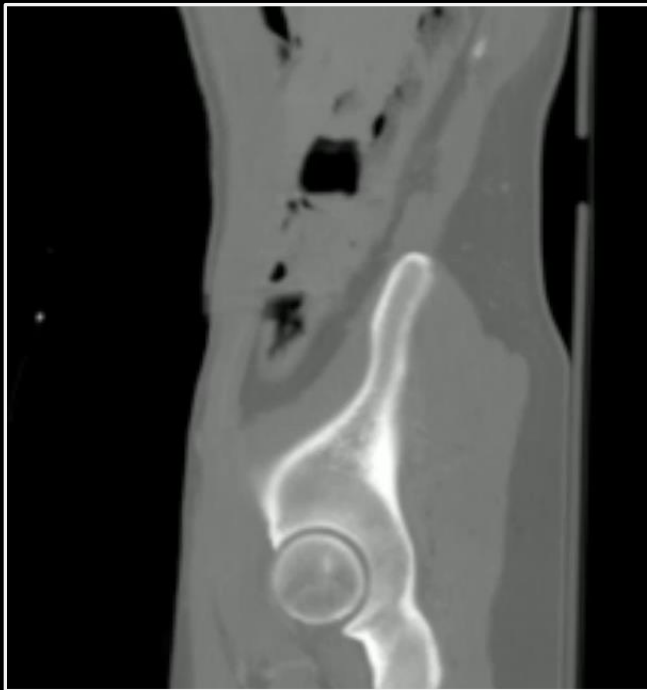


Vertebral compression with pedicle fractures

Aortic defect

Aortic laceration





Vertebral compression with pedicle fractures

Aortic defect

Aortic laceration

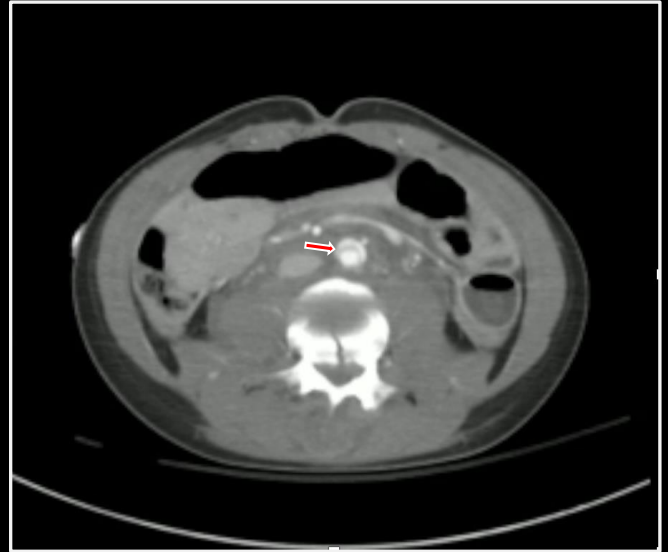


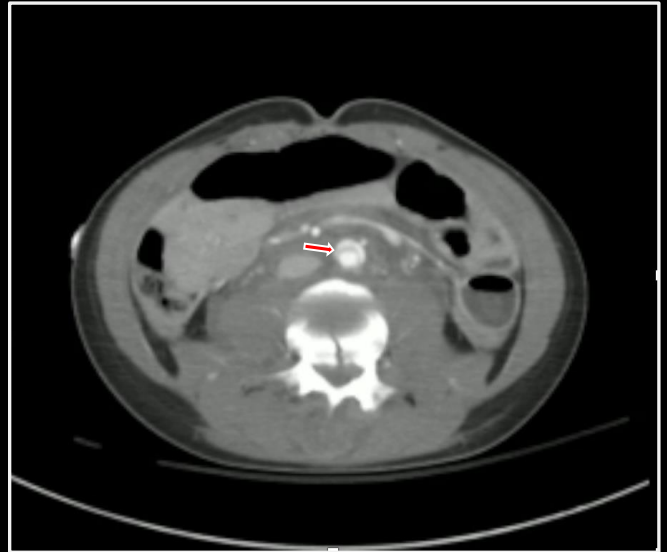


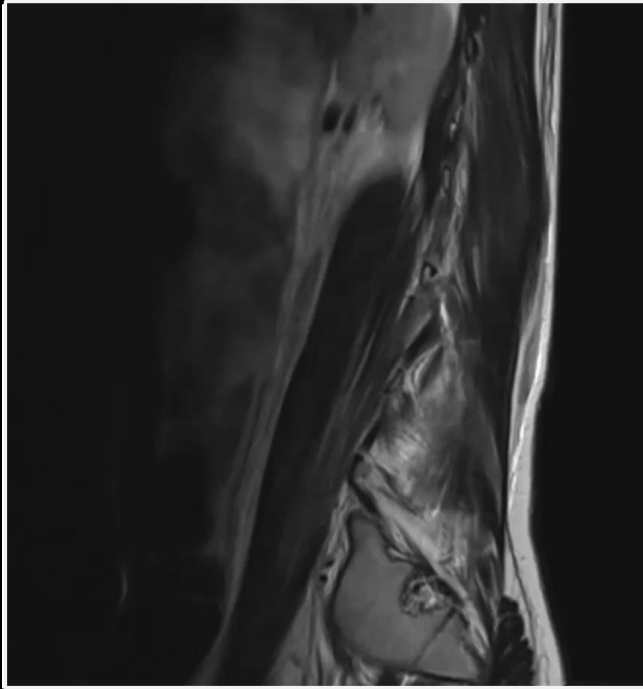
Vertebral compression with pedicle fractures

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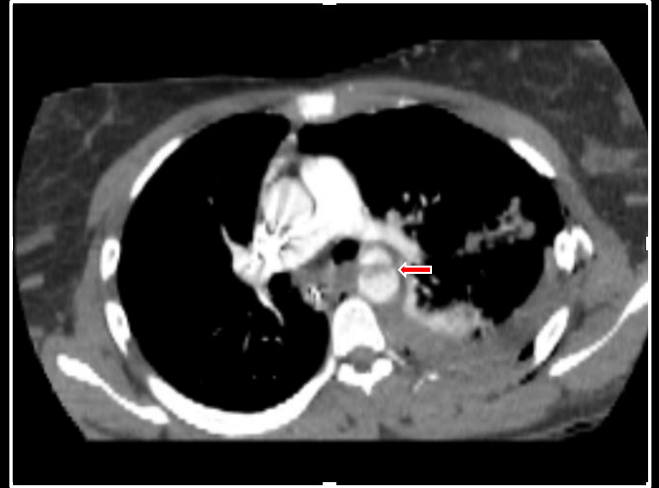
Focal aortic defect

Stomach and spleen displaced

Kidney and spleen hypodensities

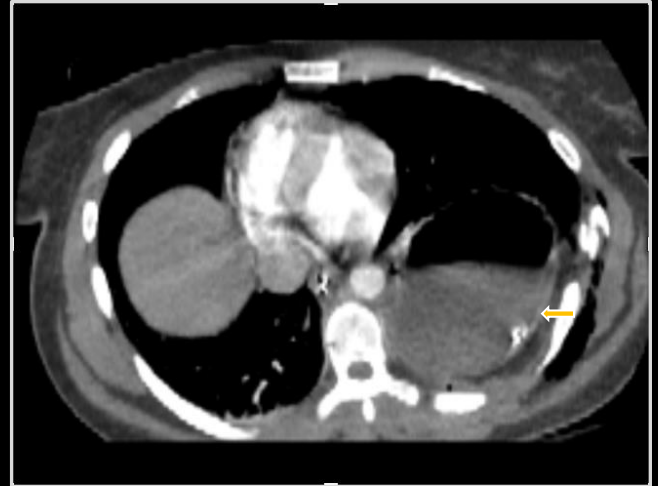
Focal diaphragmatic defect

Diaphragmatic rupture

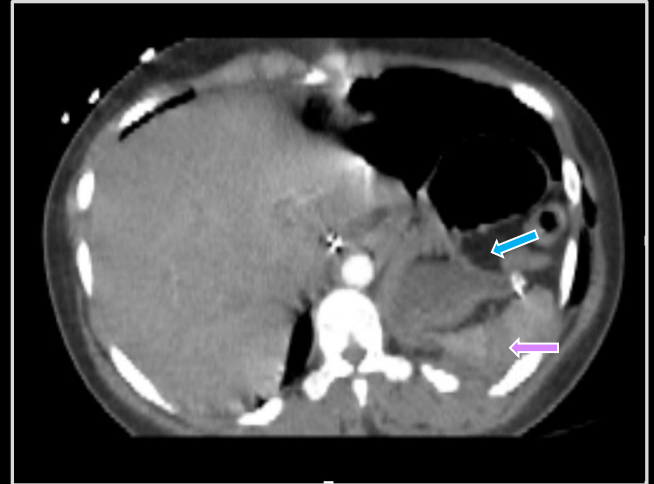


Focal aortic defect
Stomach and spleen displaced
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Focal diaphragmatic defect

Diaphragmatic rupture

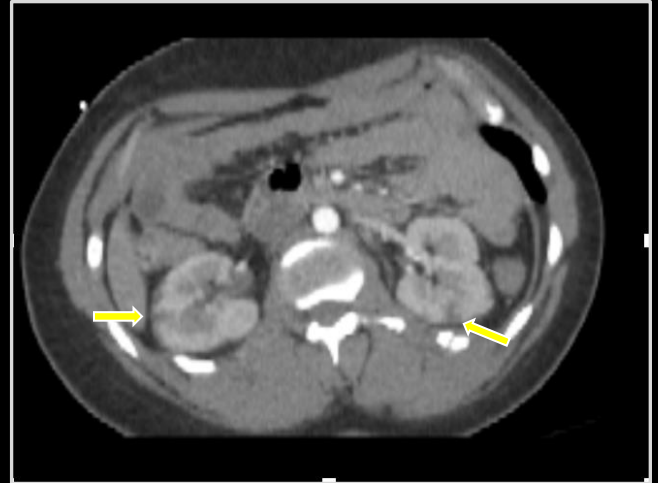


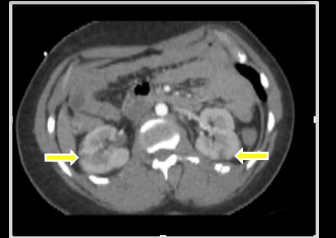
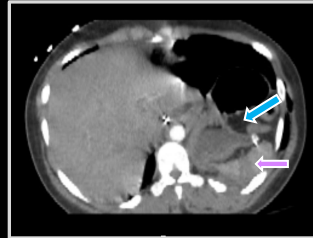
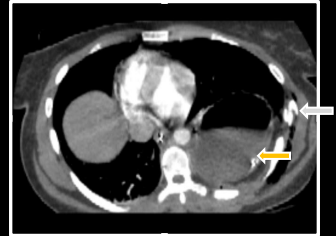
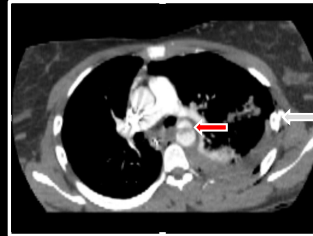
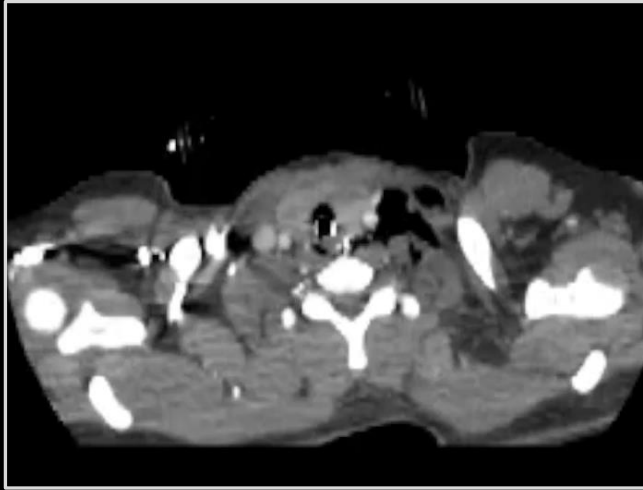
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Focal aortic defect

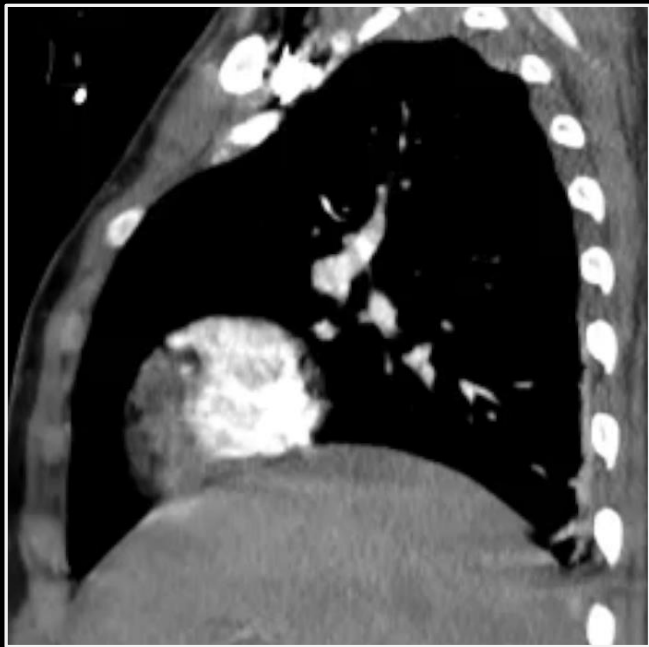
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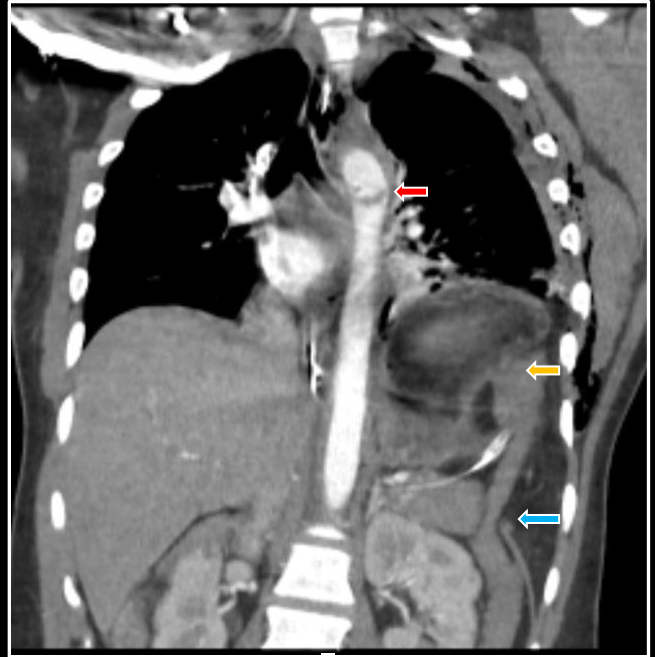
Diaphragmatic rupture





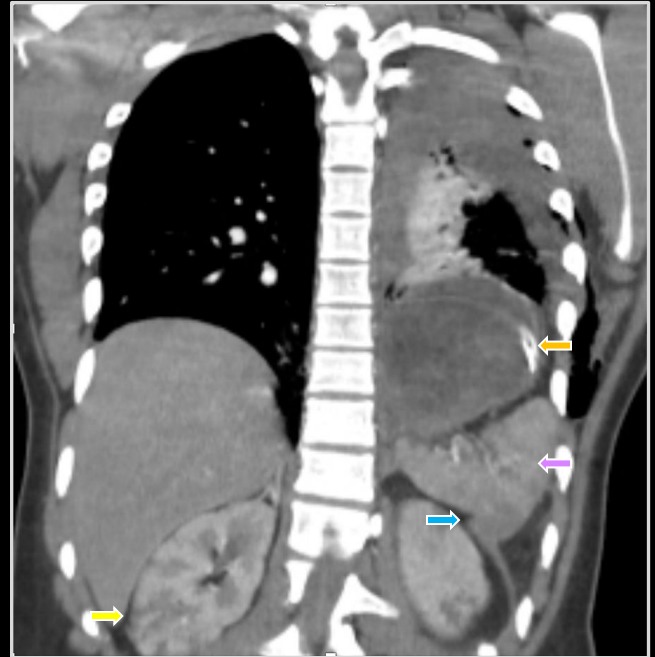
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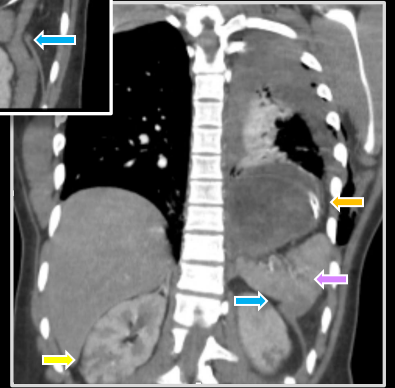
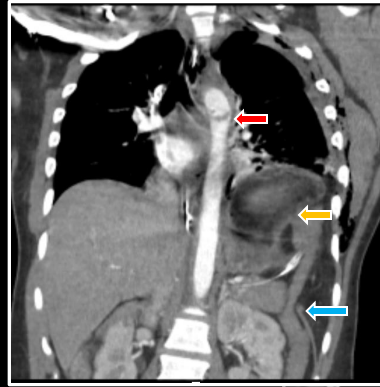
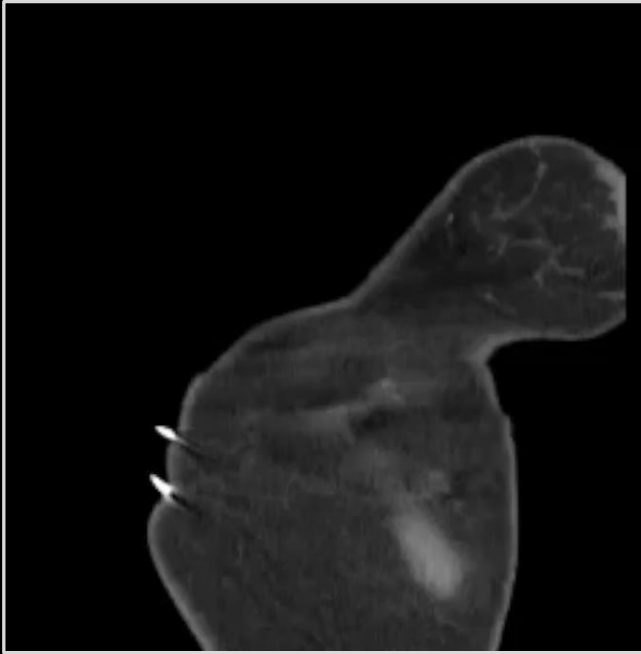
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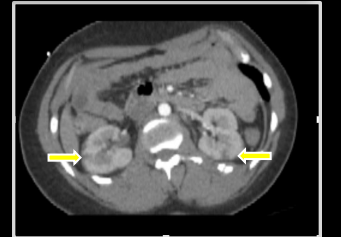
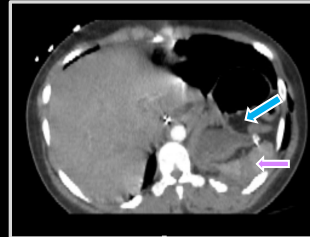
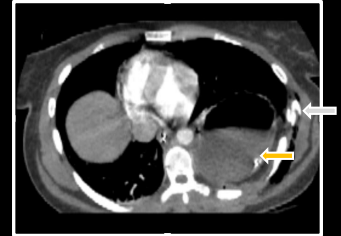
Diaphragmatic rupture





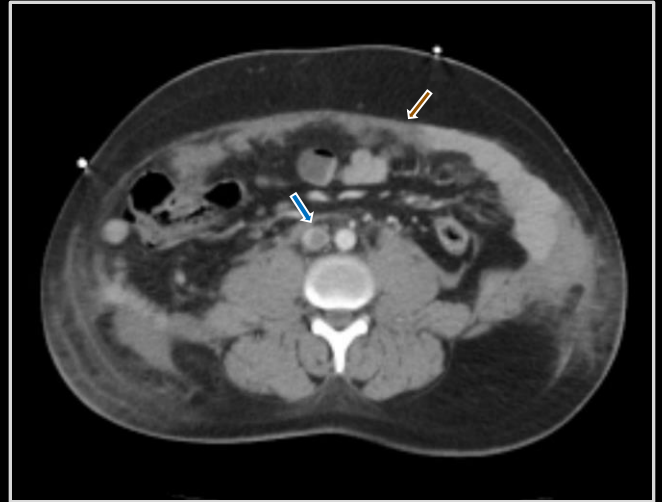
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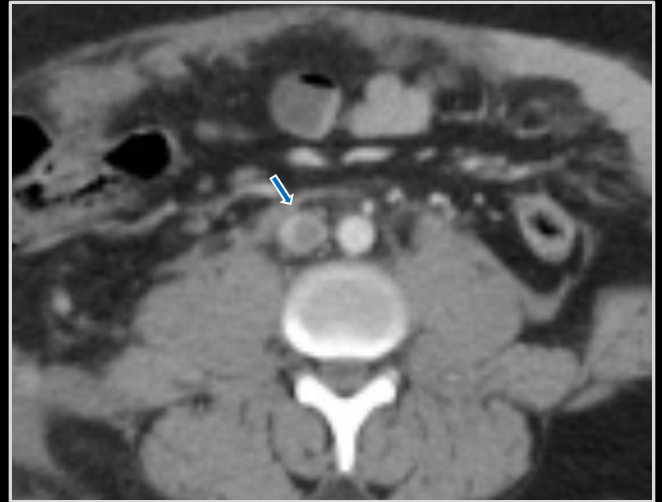
Absent abdominal wall
musculature
IVC filling defect
Aortic irregularity

**Evisceration and IVC/aortic
lacerations**



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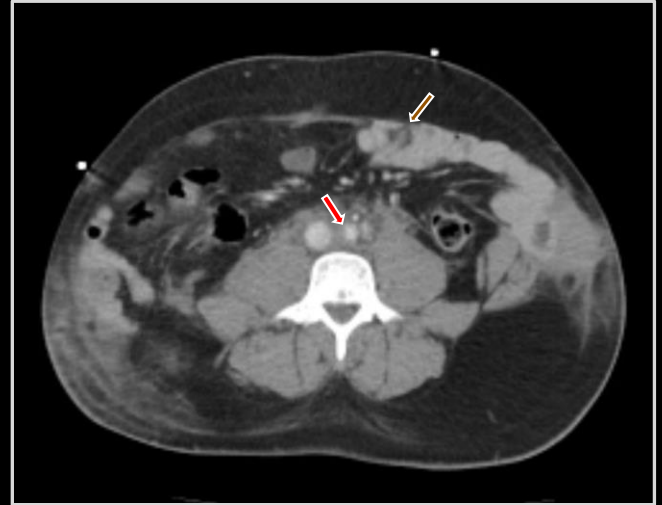
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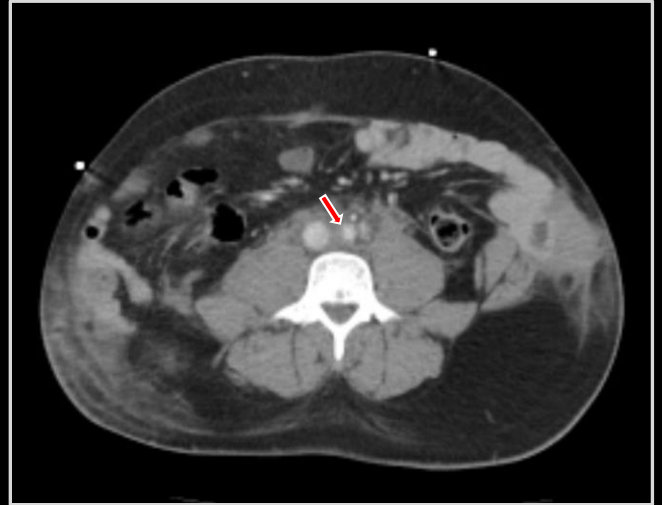
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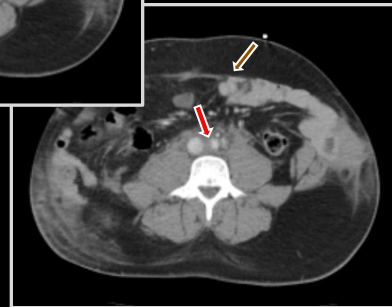
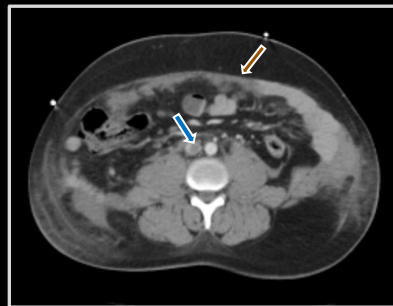
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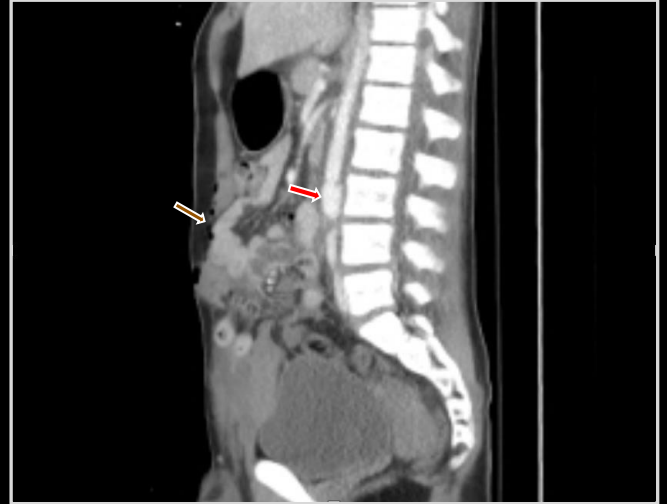
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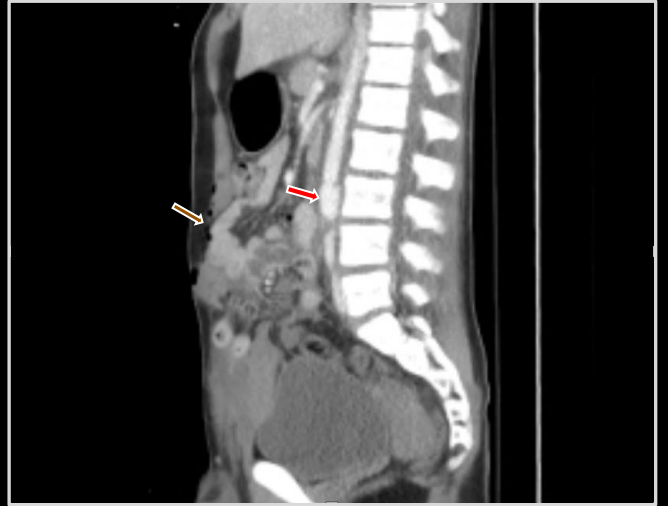
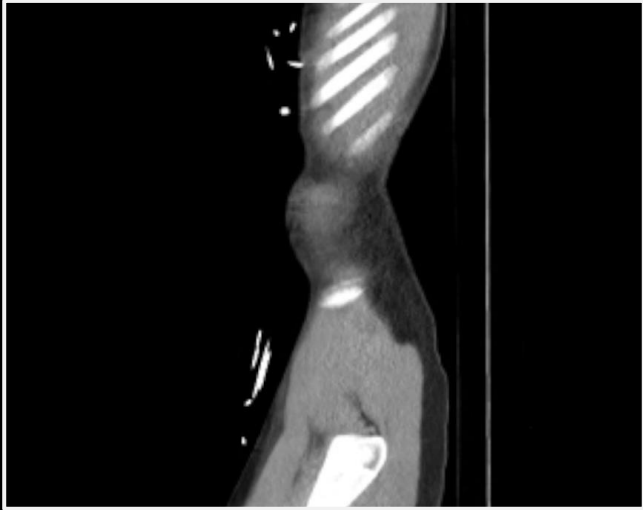




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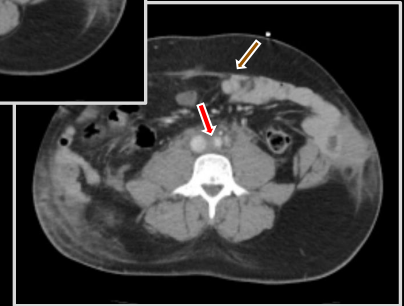
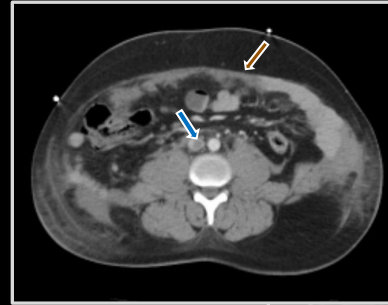
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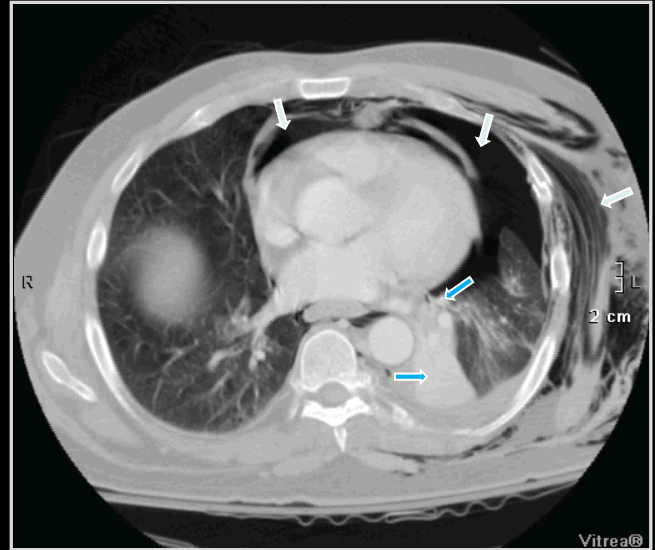
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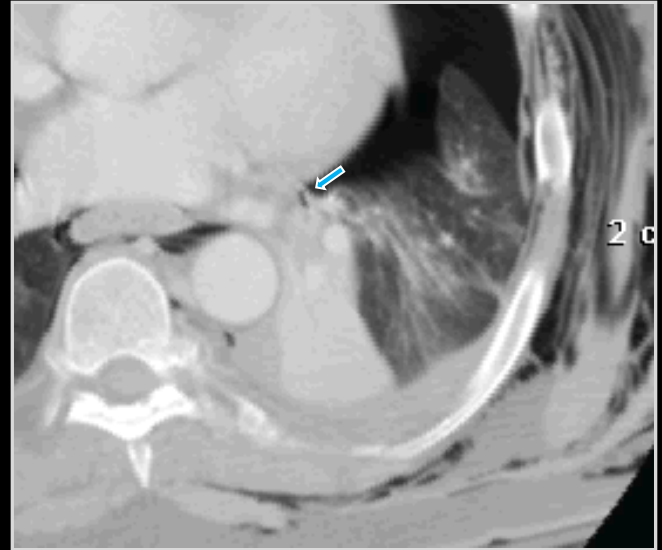
Pneumomediastinum,
pneumothorax,
and soft tissue gas
Left lower lobe consolidation
Absent LLL bronchus
Rib and clavicle fractures

Bronchial rupture



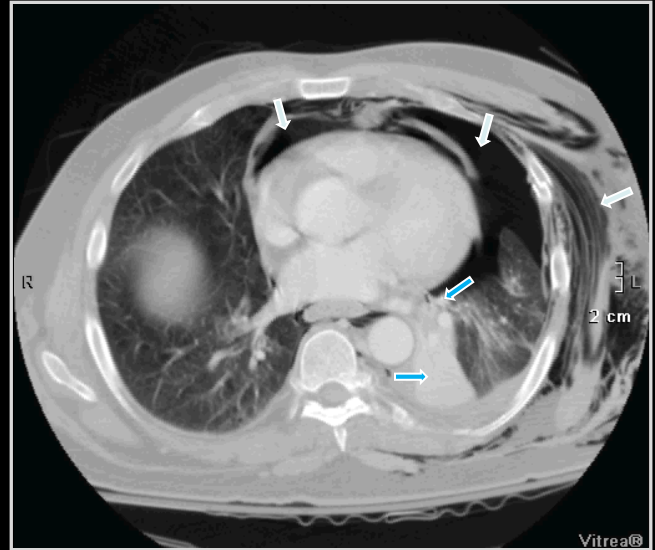
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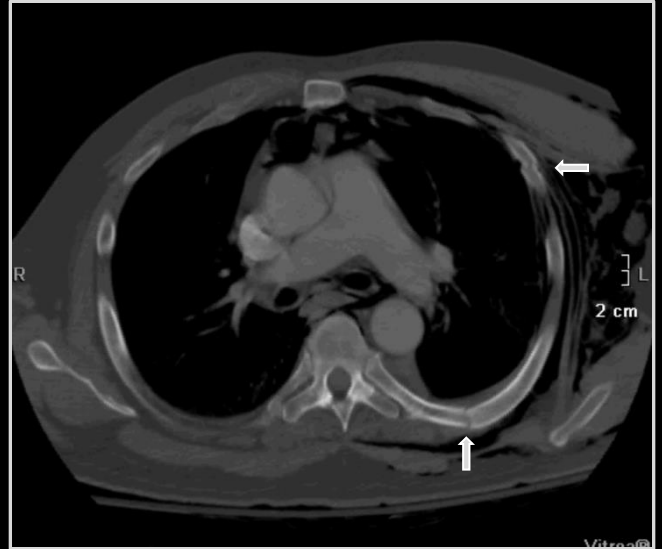
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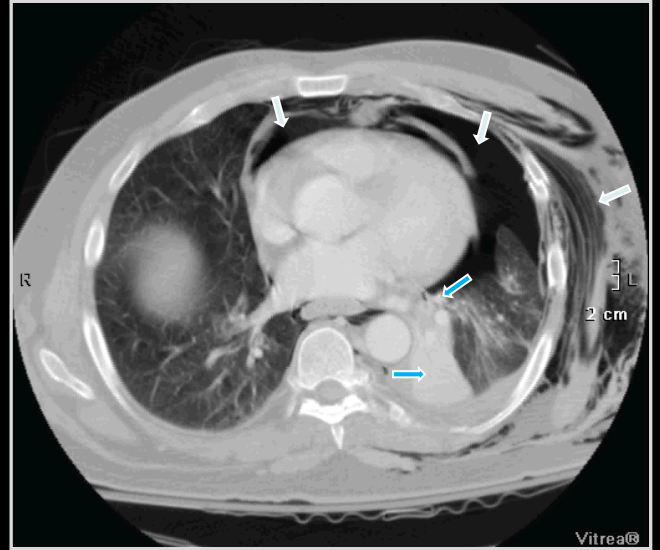
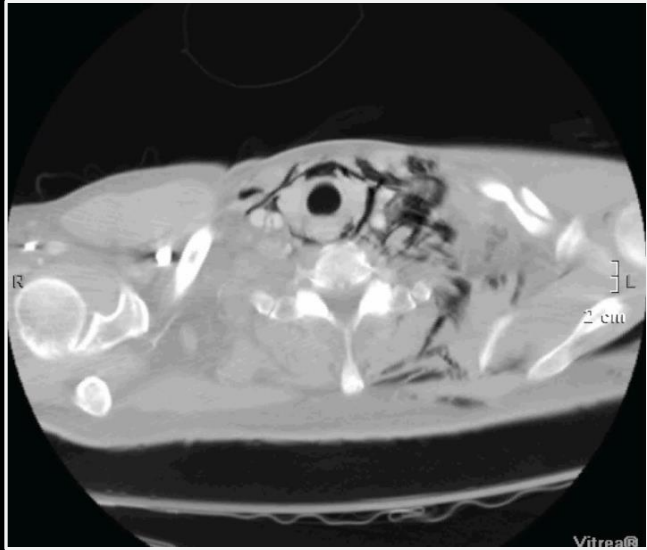
Bronchial rupture

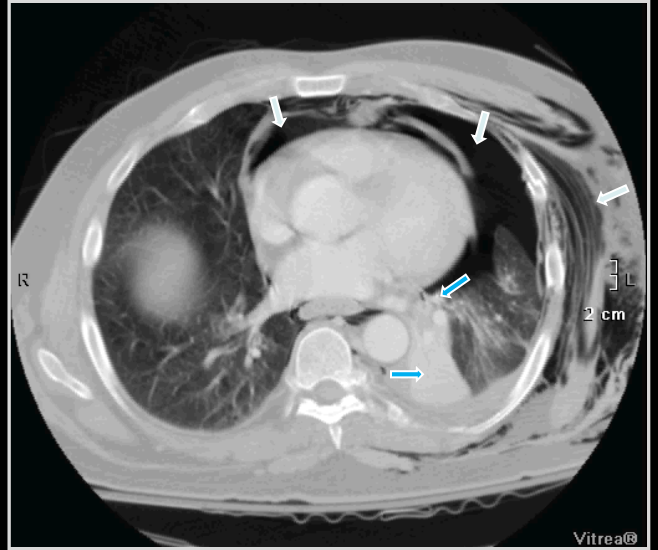
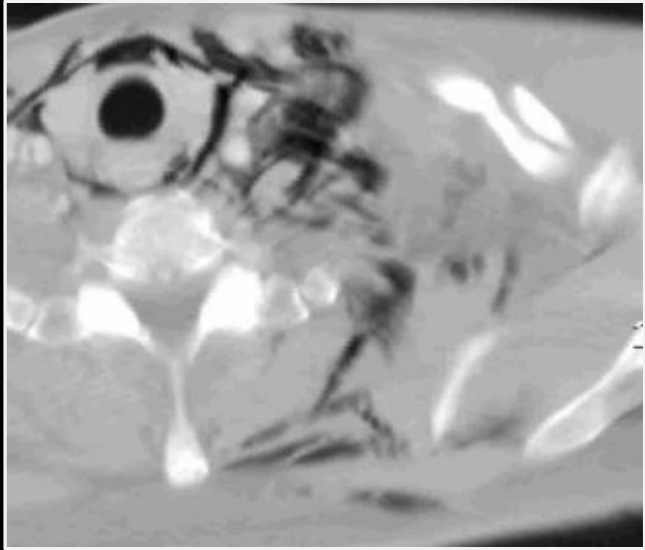


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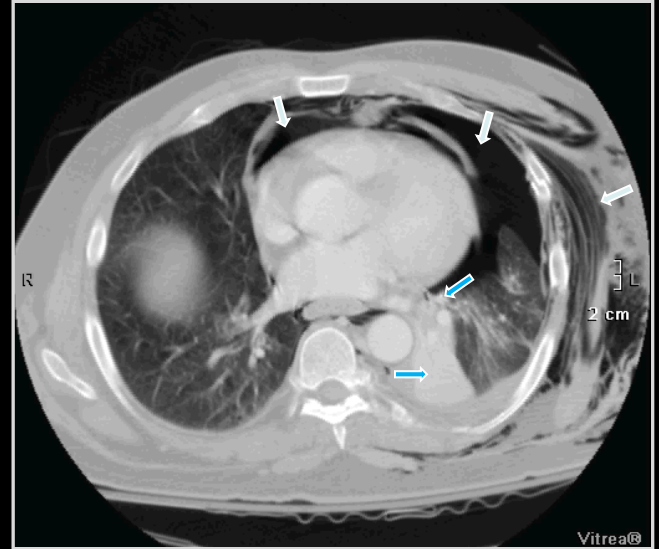






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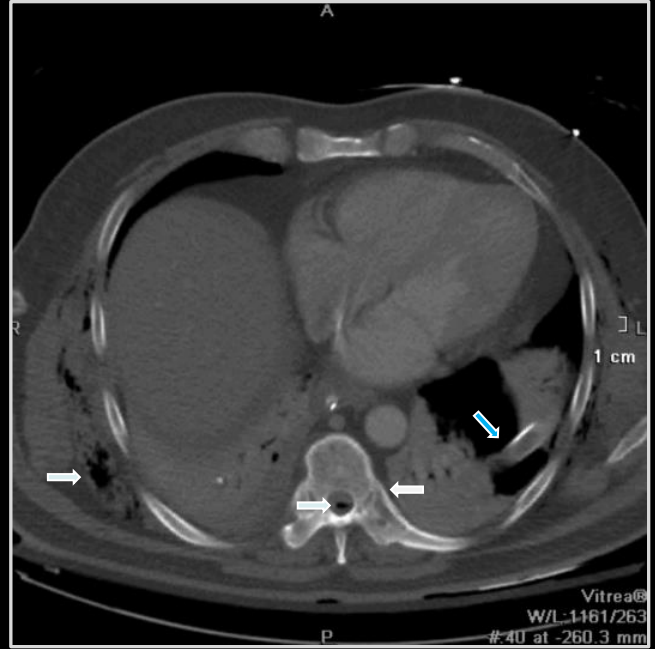
Bronchial rupture



Transverse spine lucency
Syndesmotic spine fusion
Sacroiliac joint fusion

Epidural and soft tissue gas
Improper chest tube placement
Cricothyrotomy incision

**Ankylosing spondylitis with
thoracic spine fracture**



Transverse spine lucency
Syndesmotic spine fusion
Sacroiliac joint fusion

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Improper chest tube placement
Cricothyrotomy incision

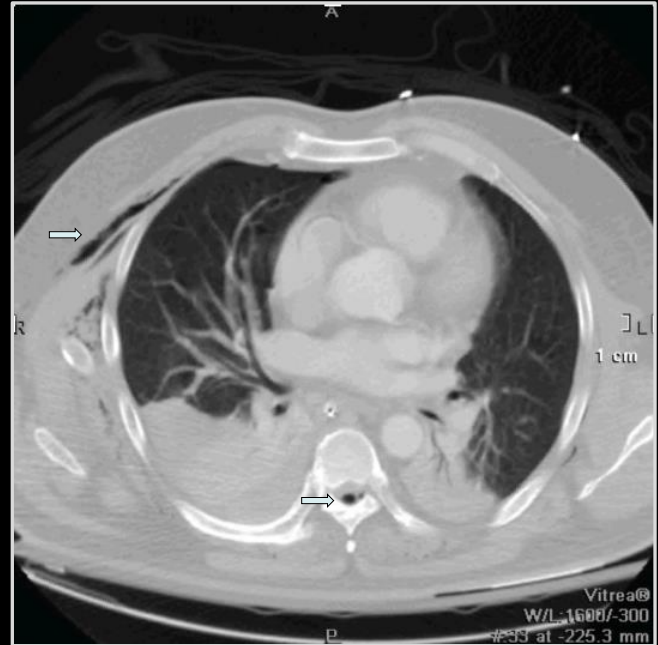
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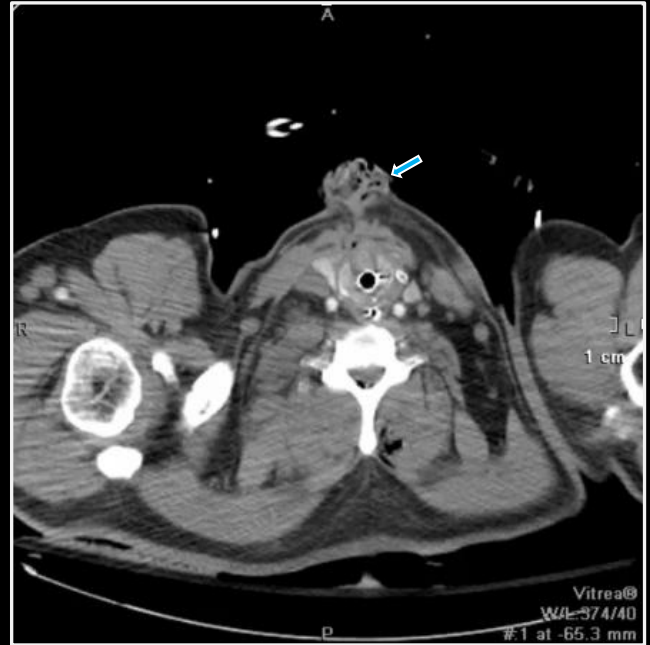
**Ankylosing spondylitis with
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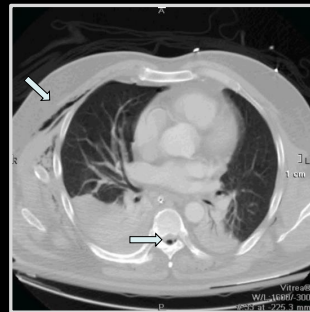
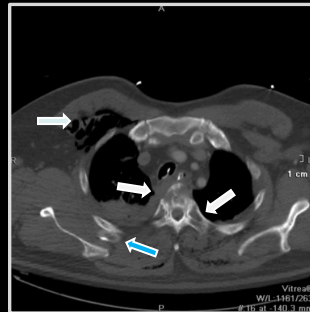
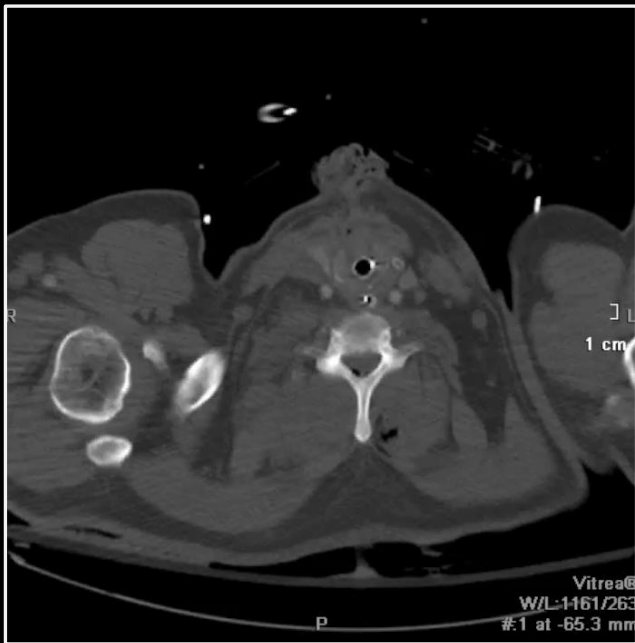


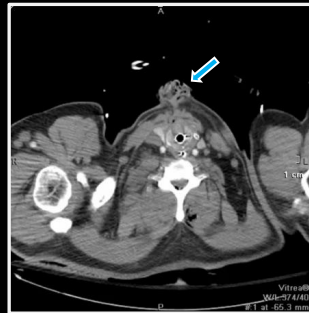
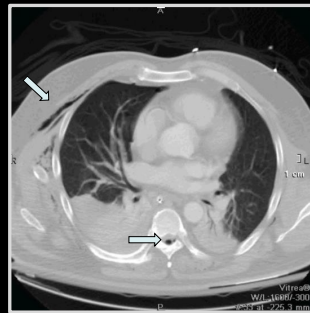
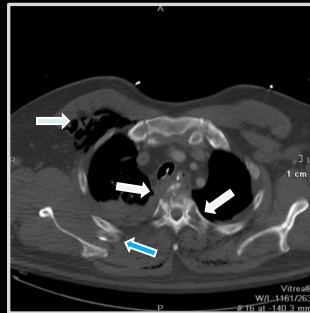
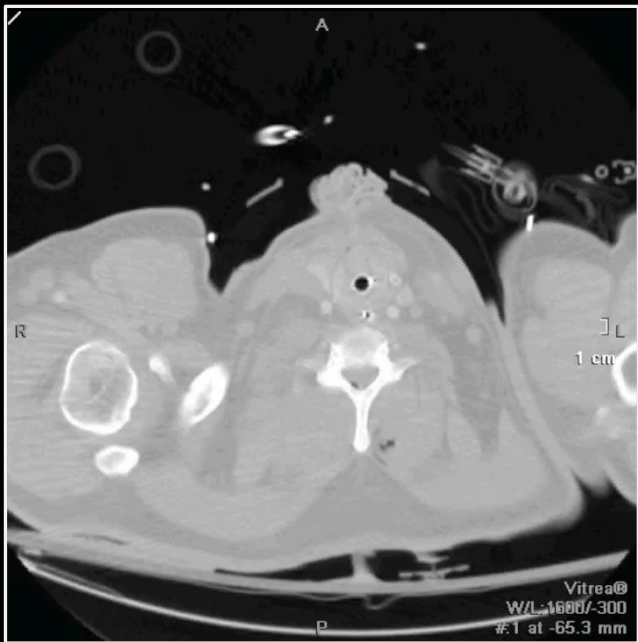
Transverse spine lucency
Syndesmotic spine fusion
Sacroiliac joint fusion

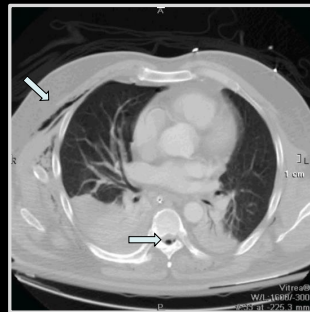
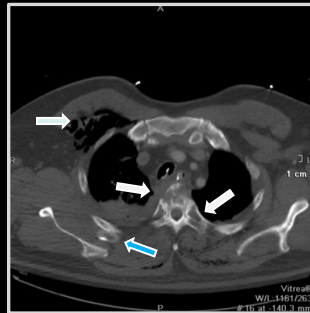
Epidural and soft tissue gas
Improper chest tube placement
Cricothyrotomy incision

**Ankylosing spondylitis with
thoracic spine fracture**





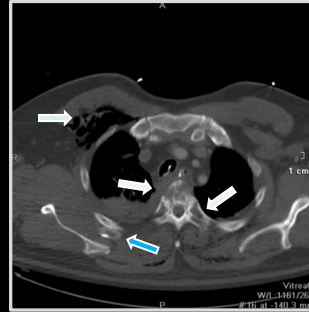




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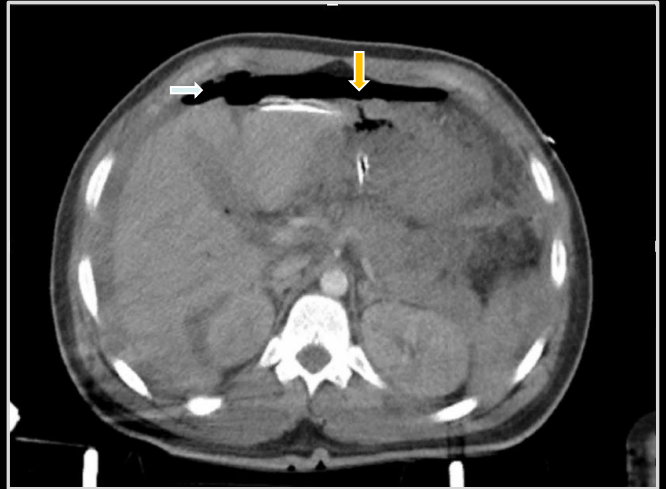
Intraperitoneal gas

Gastric defect

Extraluminal catheter

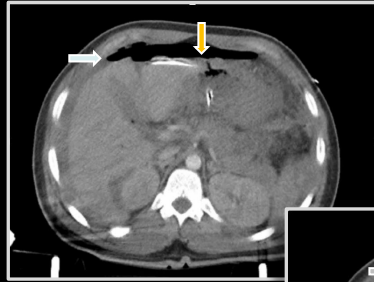
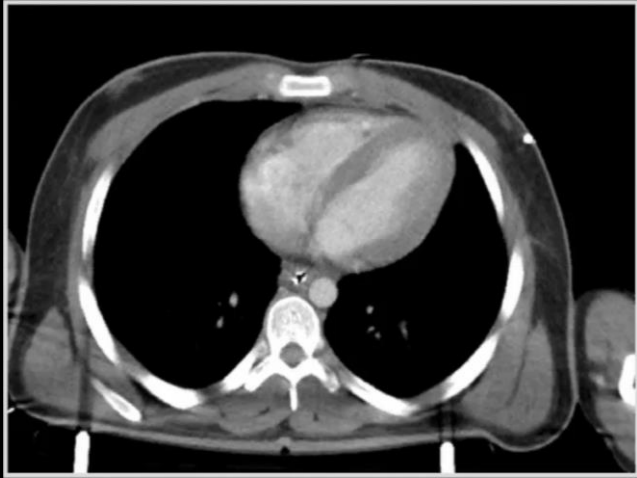
Small bowel wall thickening

Gastric rupture



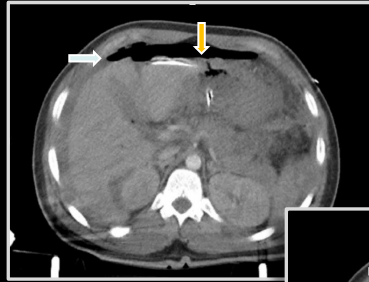
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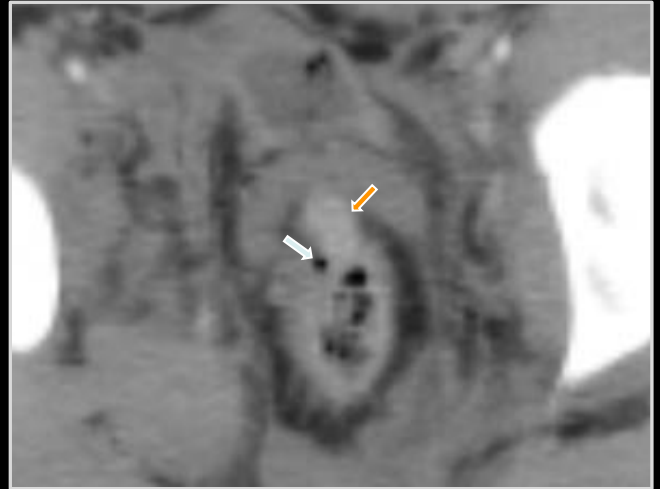
Pararectal gas
Rectal wall defect
Prolapsed small bowel

**Rectal laceration with
small bowel prolapse**



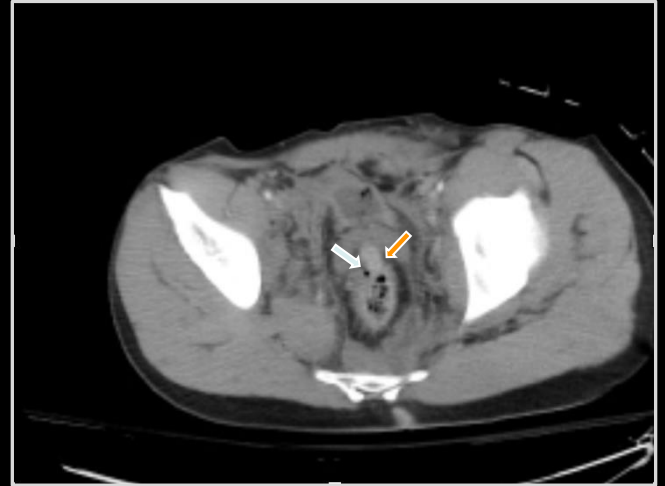
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Rectal wall defect
Prolapsed small bowel

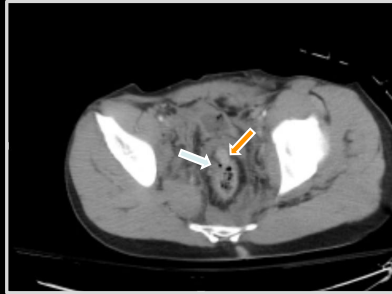
**Rectal laceration with
small bowel prolapse**

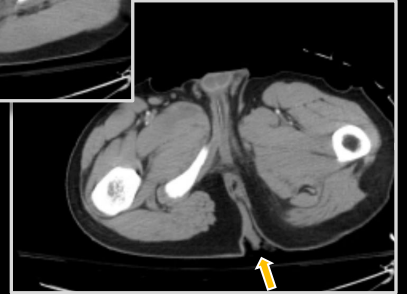
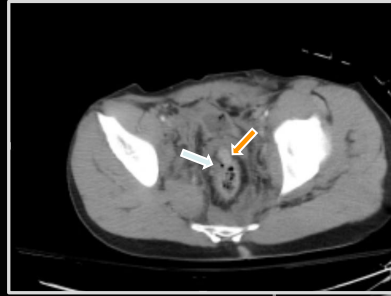
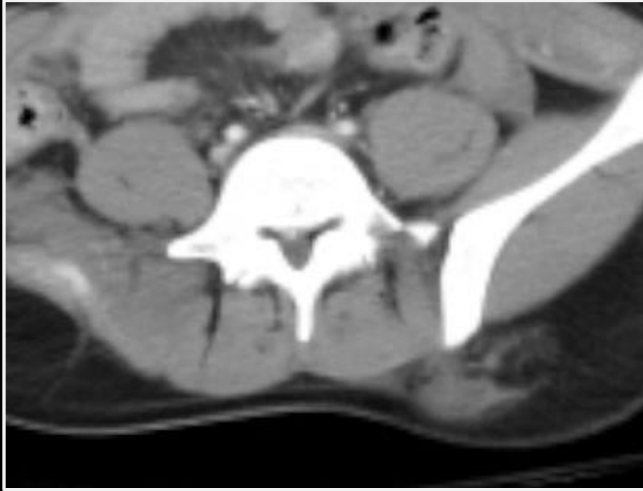


Pararectal gas
Rectal wall defect
Prolapsed small bowel

**Rectal laceration with
small bowel prolapse**

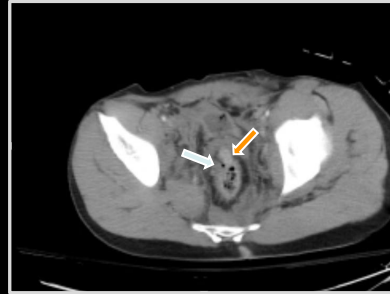






Pararectal gas
Rectal wall defect
Prolapsed small bowel

Rectal laceration / bowel prolapse



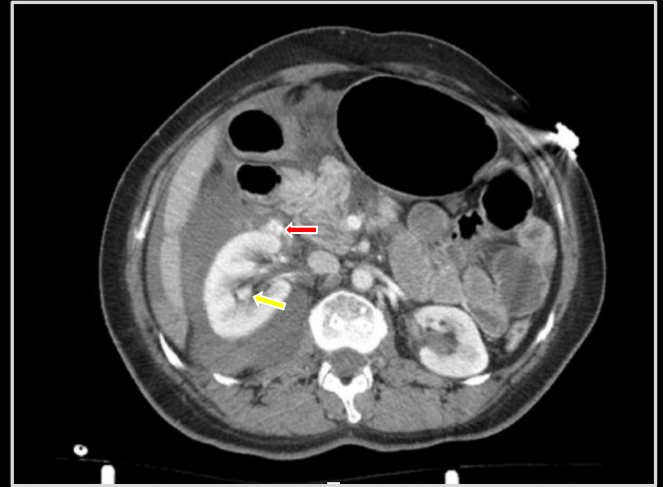
Perinephric fluid and extravasation

Collecting system contrast
(CM phase)

Ureteral contrast

Bladder contrast

Collecting system
hemorrhage



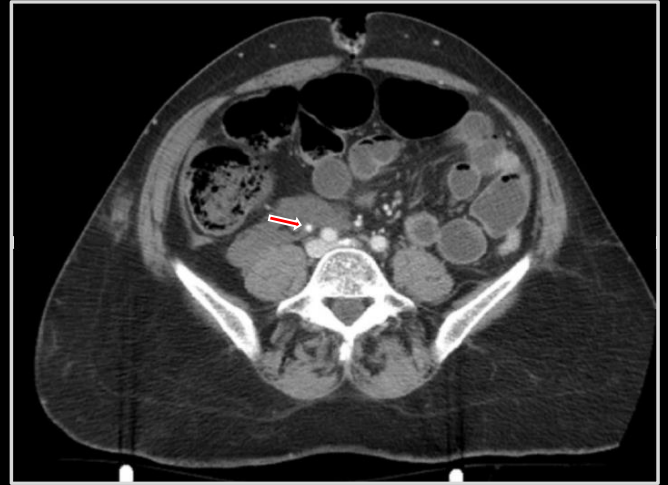
Perinephric fluid and extravasation

Collecting system contrast
(CM phase)

Ureteral contrast

Bladder contrast

Collecting system
hemorrhage



Perinephric fluid and extravasation

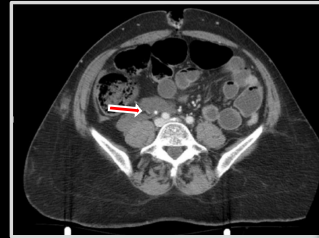
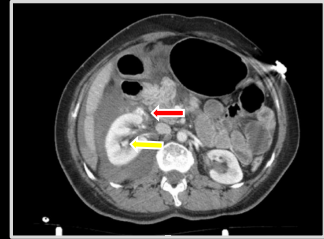
Collecting system contrast
(CM phase)

Ureteral contrast

Bladder contrast

Collecting system
hemorrhage





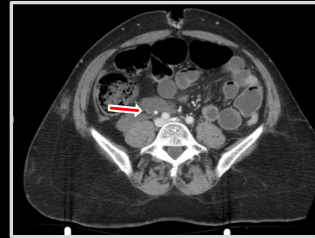
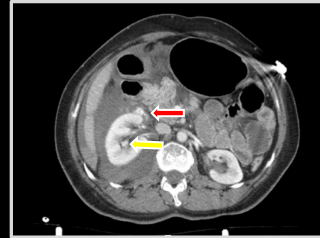
Perinephric fluid and extravasation

Collecting system contrast
(CM phase)

Ureteral contrast

Bladder contrast

Collecting system
hemorrhage

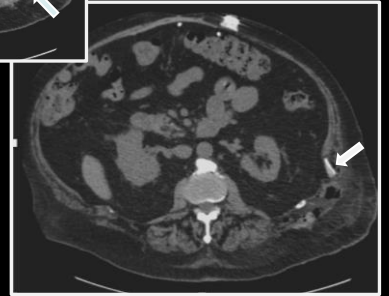
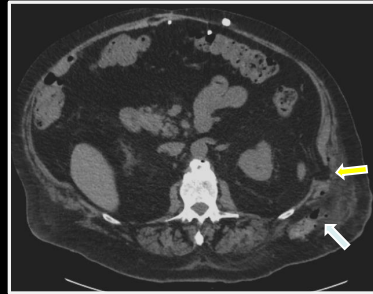


Soft tissue gas and fluid
Peritoneal fat herniation
Calcified foreign body
Peritoneal laceration



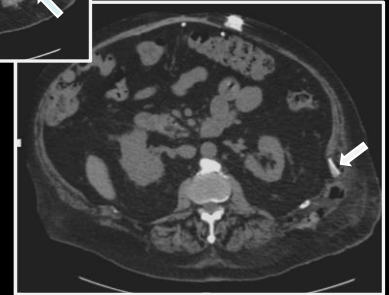
Soft tissue gas and fluid
Peritoneal fat herniation
Calcified foreign body
Peritoneal laceration





Soft tissue gas and fluid
Peritoneal fat herniation
Calcified foreign body

Peritoneal laceration

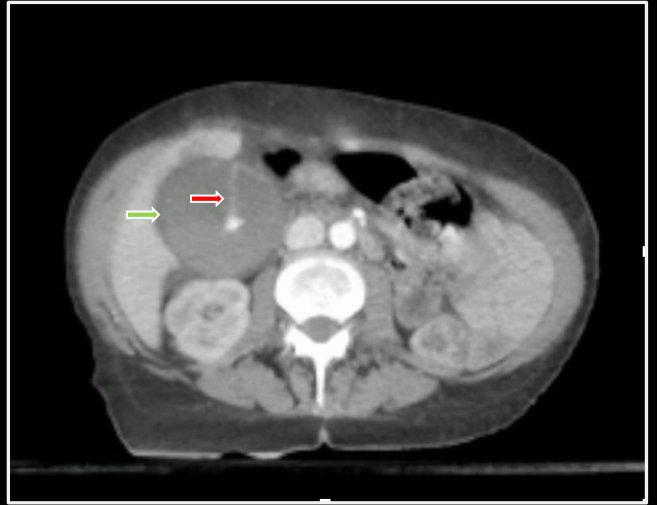
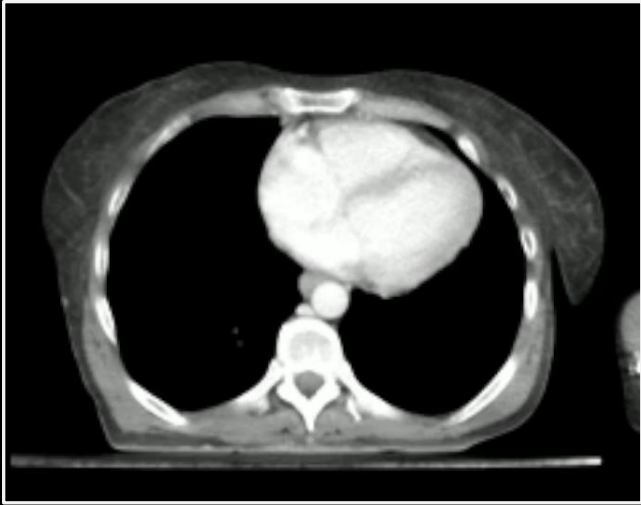


Distended, hyperdense gallbladder

Active extravasation

Gallbladder laceration

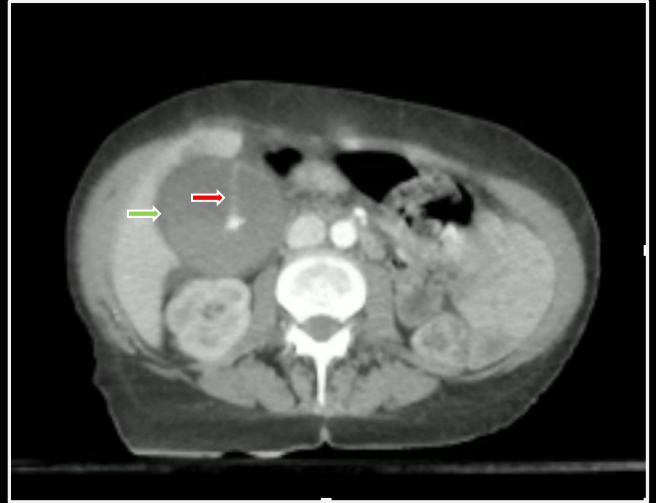




Distended, hyperdense gallbladder

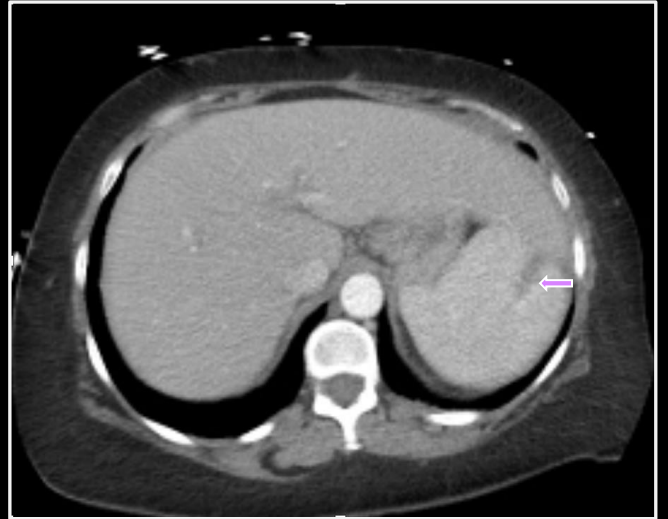
Active extravasation

Gallbladder laceration



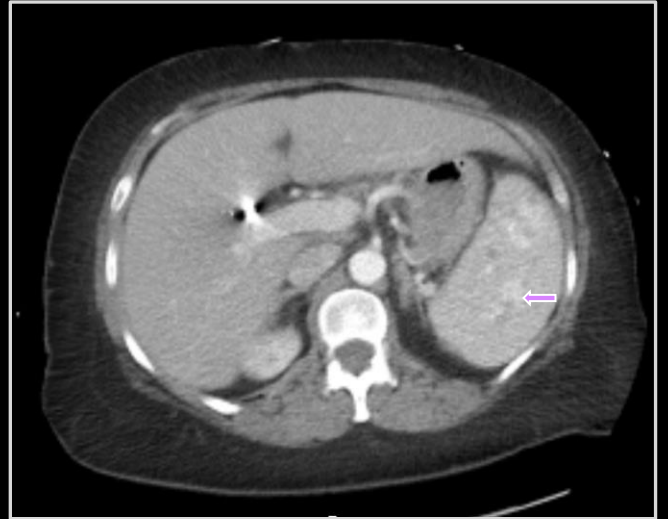
Spleen heterogeneity
Spleen homogeneity

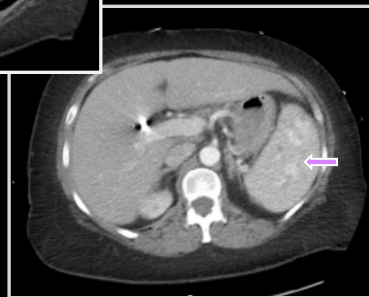
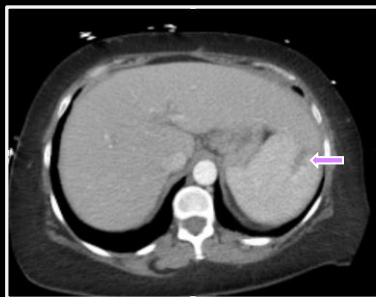
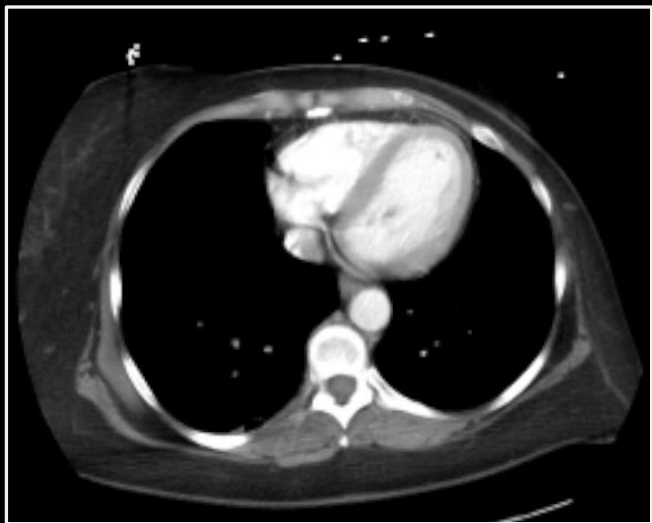
Splenic laceration



Spleen heterogeneity
Spleen homogeneity

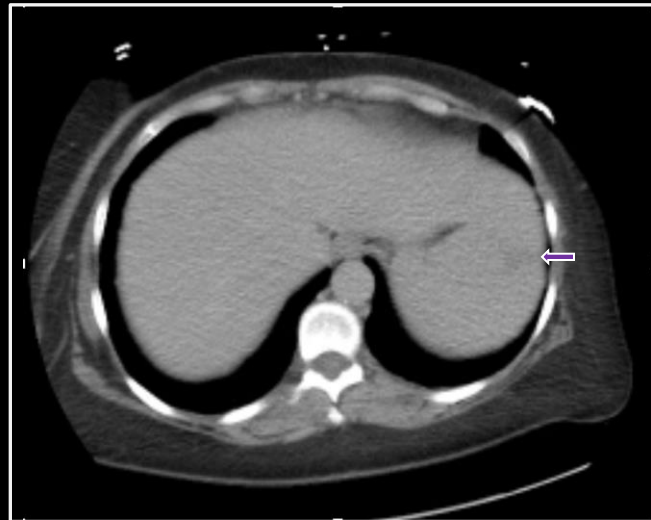
Splenic laceration





Spleen heterogeneity
Spleen homogeneity

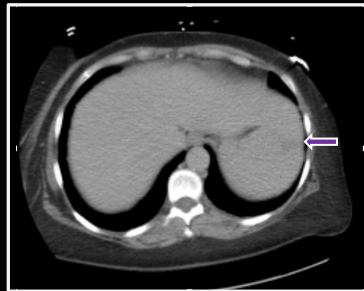
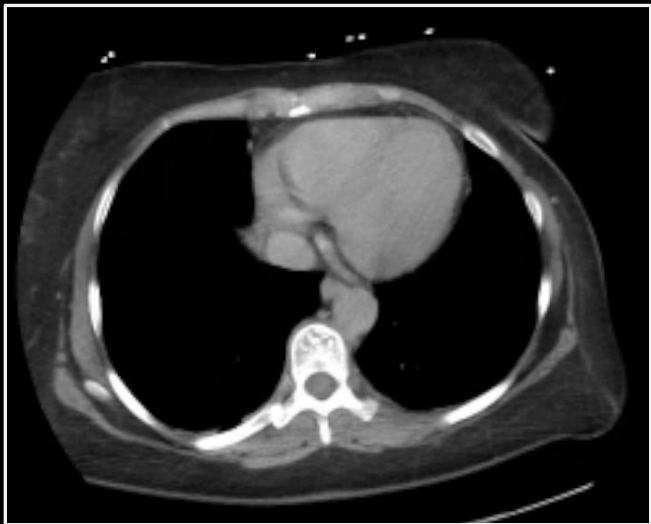
Splenic laceration



Spleen heterogeneity
Spleen homogeneity

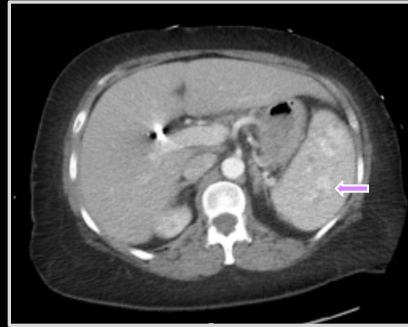
Splenic laceration





Spleen heterogeneity
Spleen homogeneity

Splenic laceration



Linear pancreatic hypodensity

Peripancreatic fluid

Periaortic fluid

Aortic discontinuity

Pancreatic and aortic lacerations



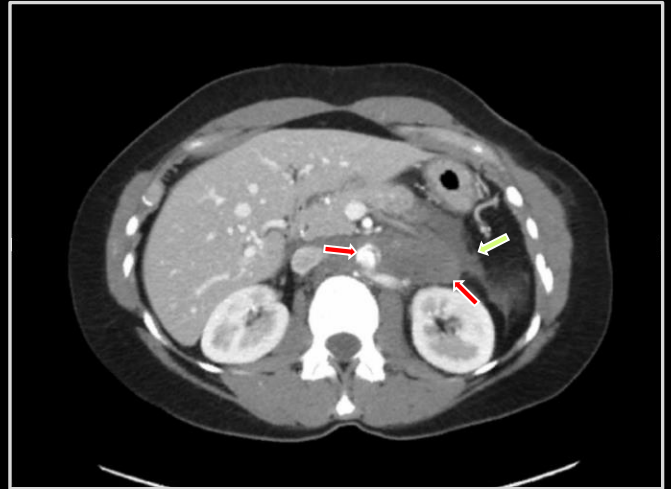
Linear pancreatic hypodensity

Peripancreatic fluid

Periaortic fluid

Aortic discontinuity

Pancreatic and aortic lacerations



Linear pancreatic hypodensity

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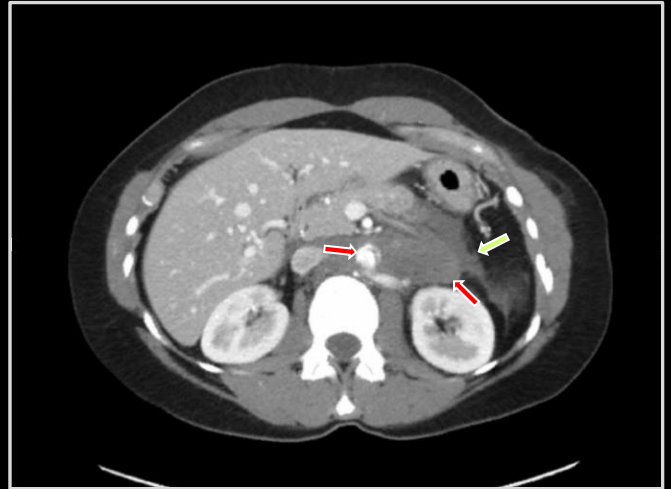
Linear pancreatic hypodensity

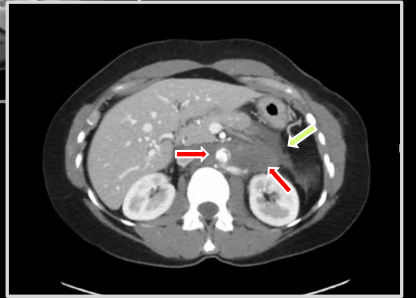
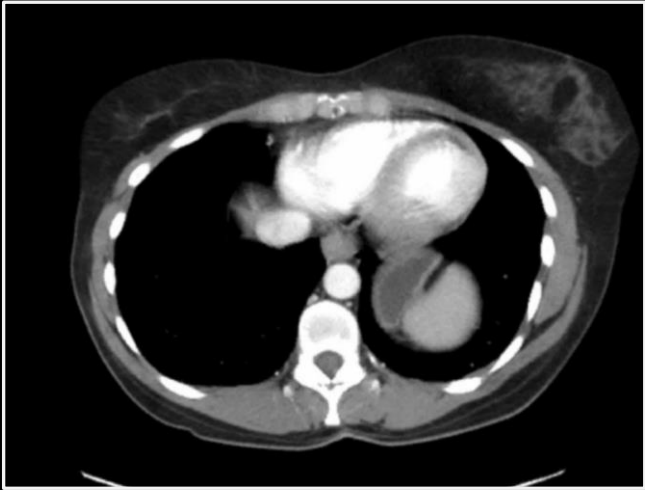
Peripancreatic fluid

Periaortic fluid

Aortic discontinuity

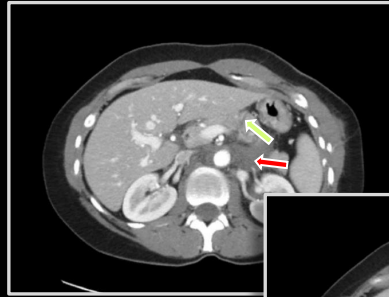
Pancreatic and aortic lacerations





Linear pancreatic hypodensity
Peripancreatic fluid
Periaortic fluid
Aortic discontinuity

Pancreatic and aortic lacerations



Soft tissue gas

IVC extravasation

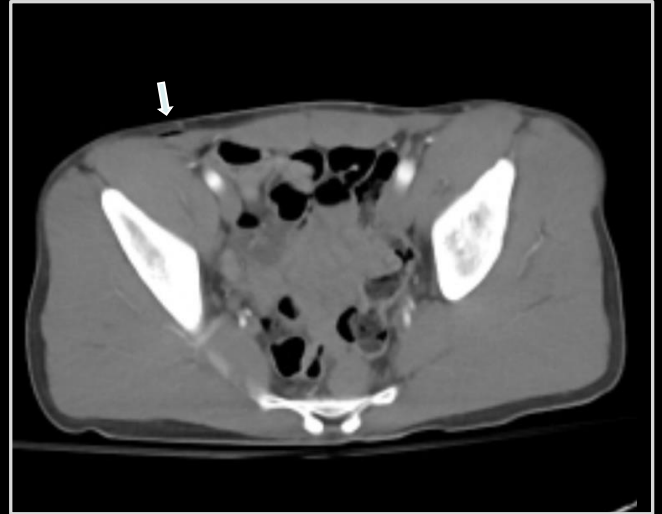
Segmental renal artery defect

Kidney hypodensity

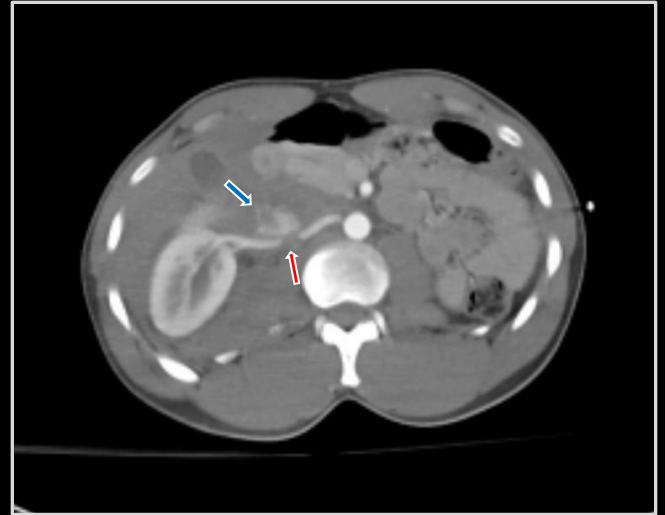
Accessory renal artery

Intracardiac density

Bullet embolism

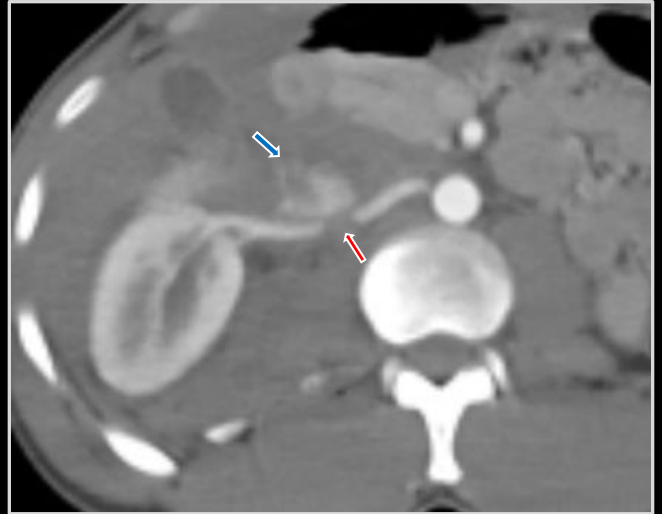


Soft tissue gas
IVC extravasation
Segmental renal artery defect
Kidney hypodensity
Accessory renal artery
Intracardiac density
Bullet embolism



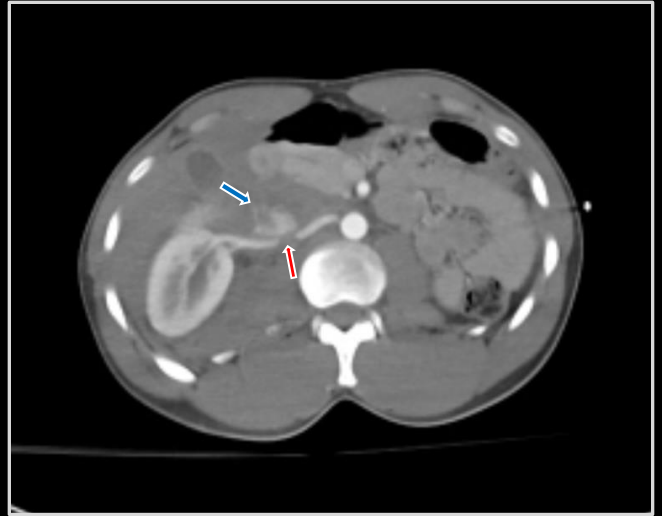
Soft tissue gas
IVC extravasation
Segmental renal artery defect
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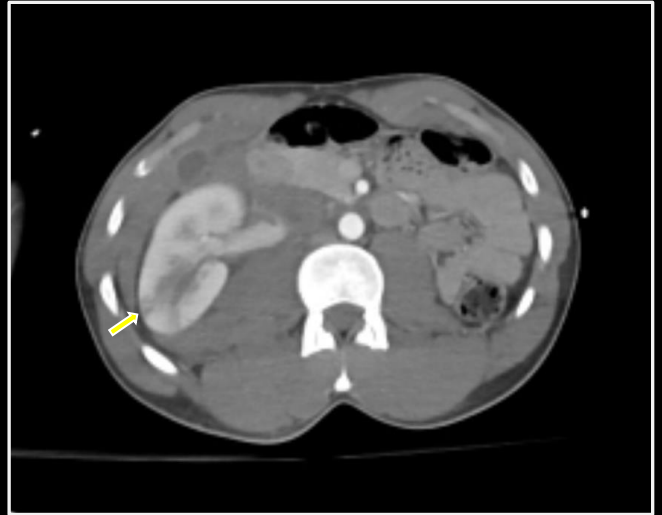
Soft tissue gas
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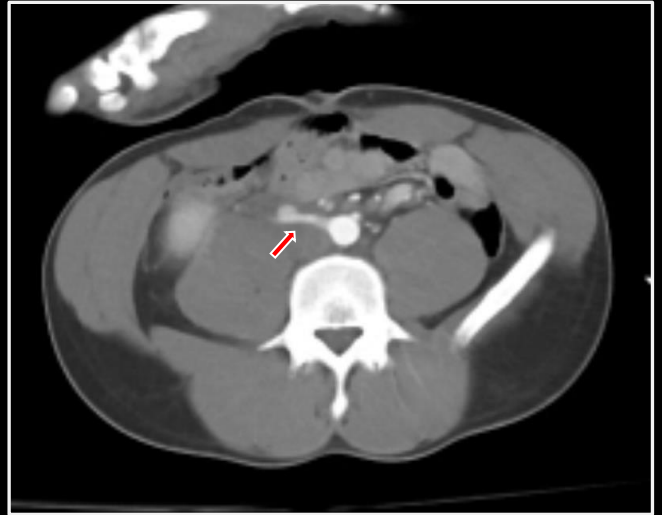
Soft tissue gas
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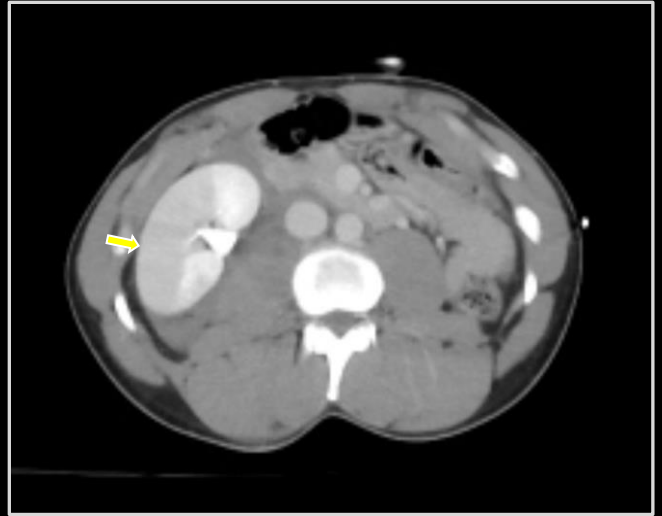
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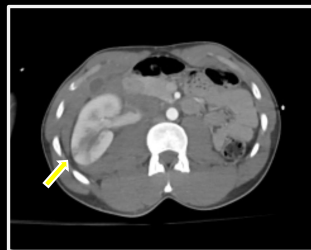
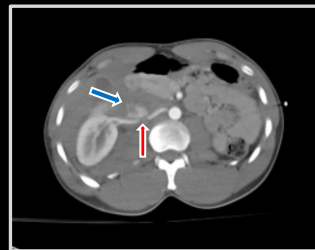
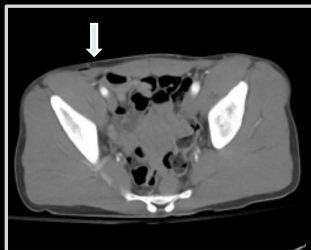
Soft tissue gas
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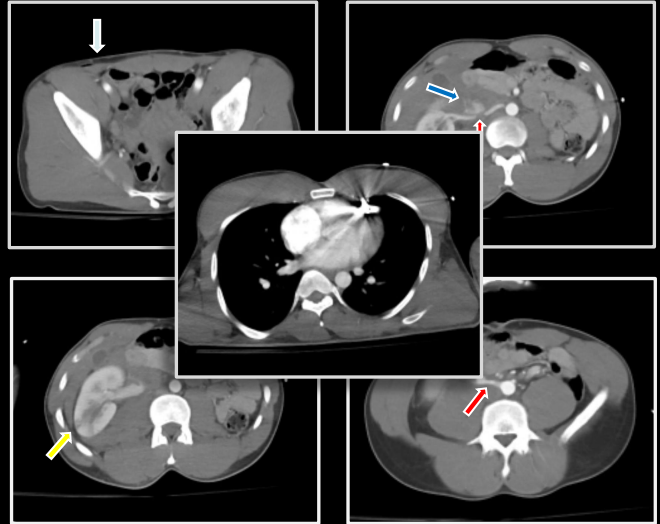
Soft tissue gas
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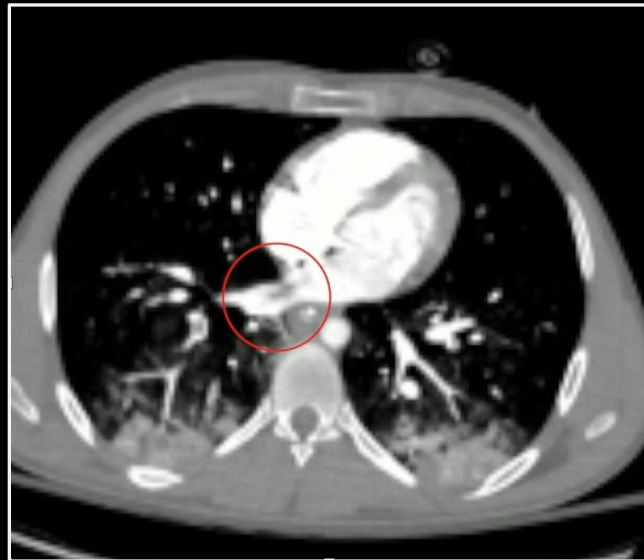
Venous and arterial thrombus
Femoral extravasation

DIC



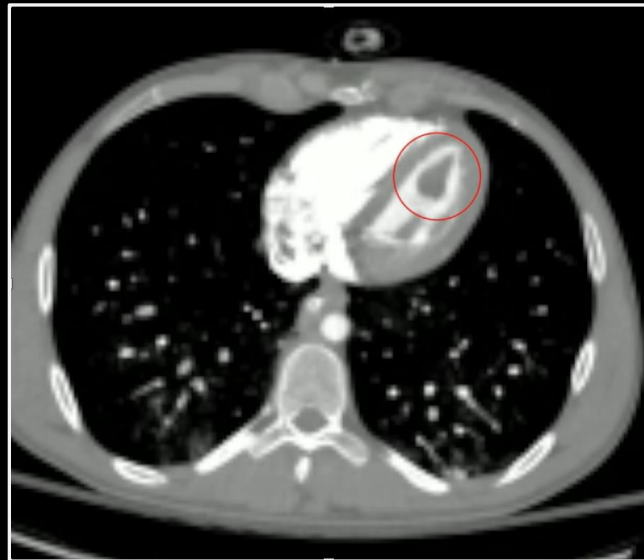
Venous and arterial thrombus
Femoral extravasation

DIC



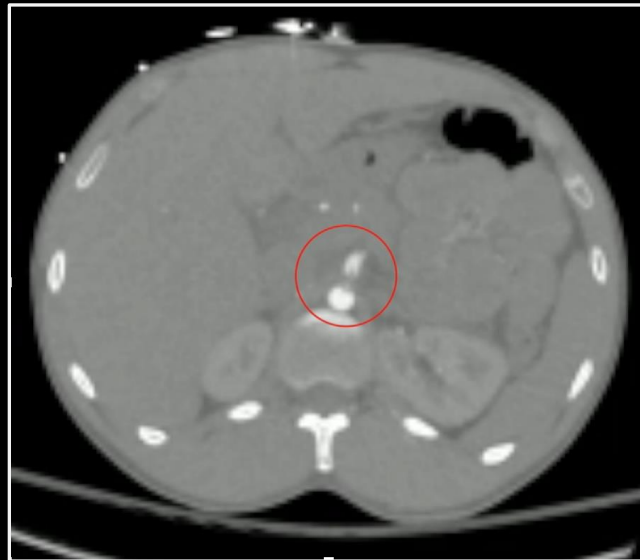
Venous and arterial thrombus
Femoral extravasation

DIC



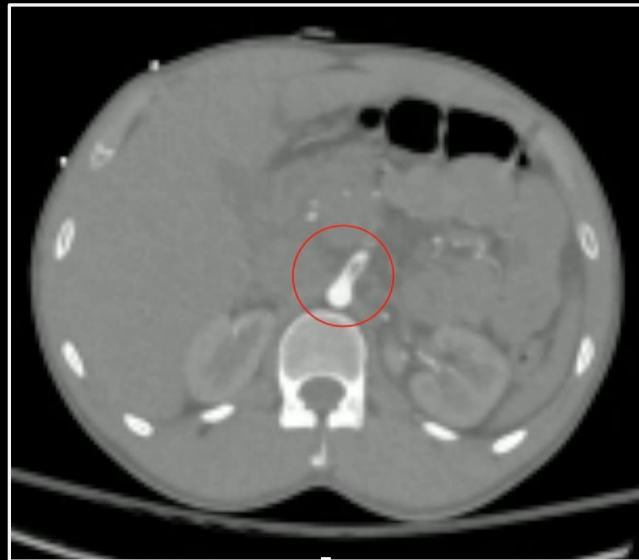
Venous and arterial thrombus
Femoral extravasation

DIC



Venous and arterial thrombus
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DIC



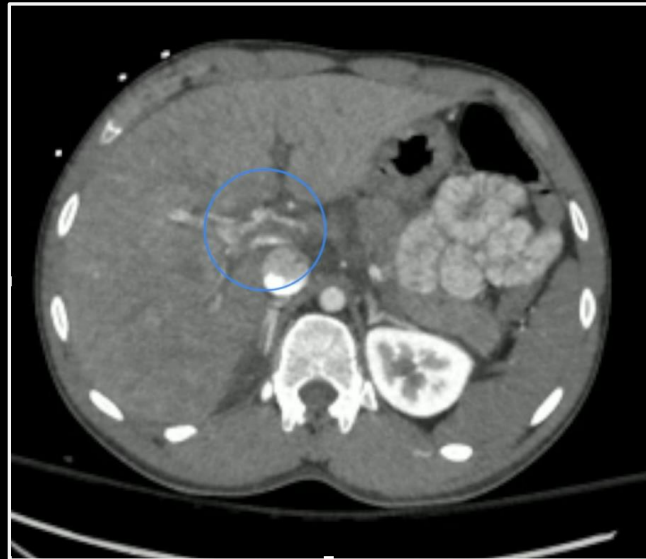
Venous and arterial thrombus
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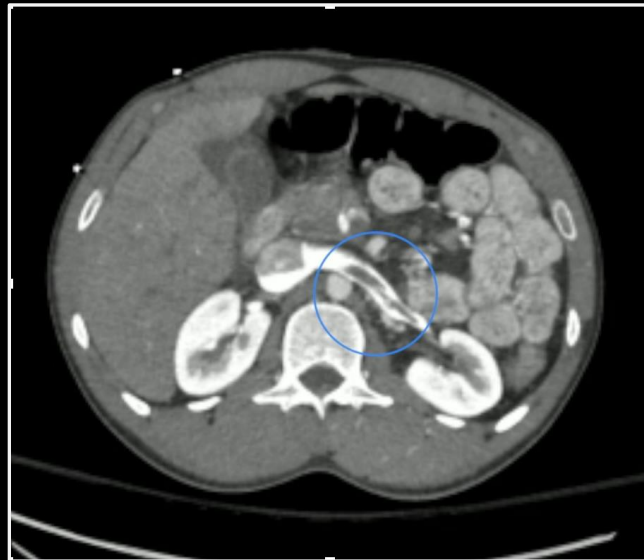
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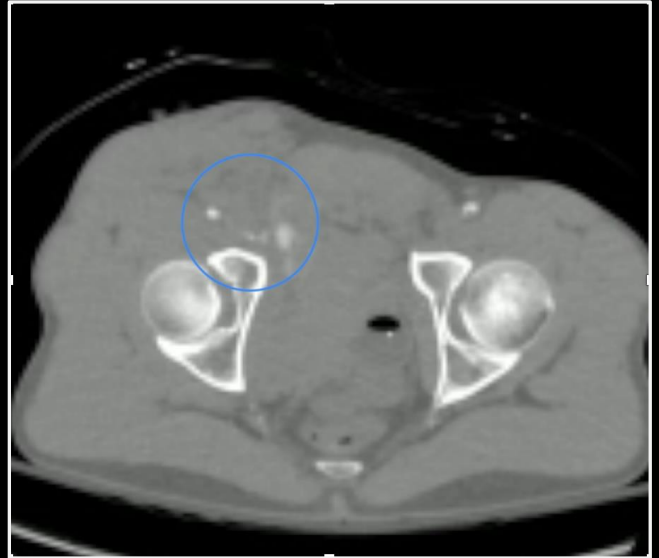
Venous and arterial thrombus
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Venous and arterial thrombus
Femoral extravasation

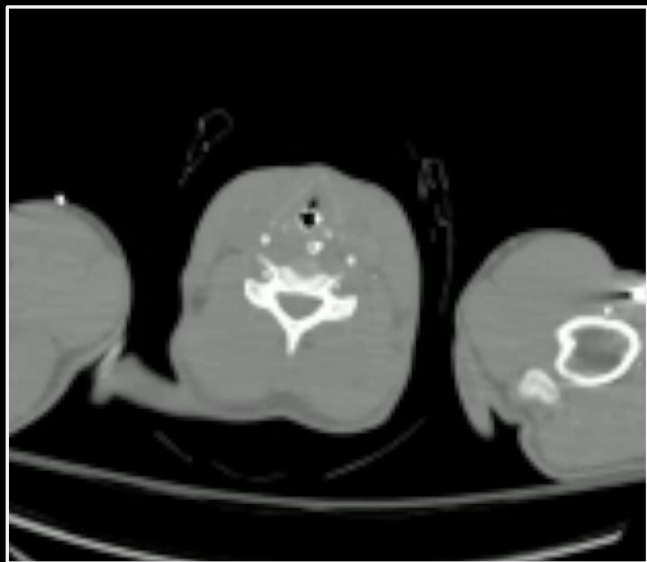
DIC



Venous and arterial thrombus
Femoral extravasation

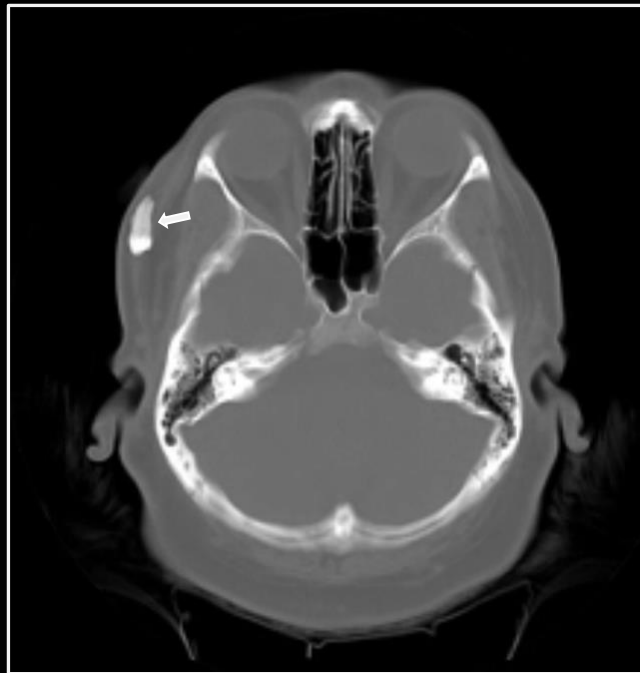
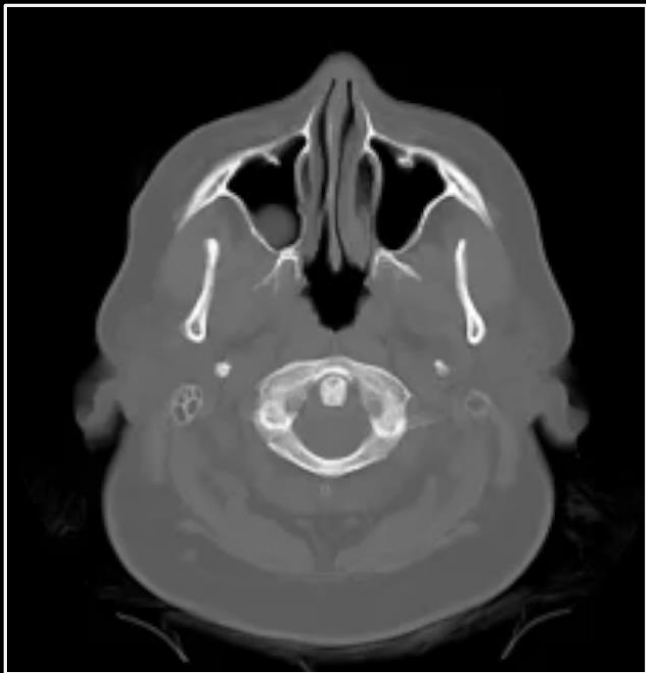
DIC





Tooth in subcutaneous fat





Tooth in subcutaneous fat

**Projectile tooth from
husband's suicide**



Thoracoabdominal Trauma

Benjamin W. Strong, MD