



| Extra-axial lesions | Comment |
|--|--|
| <p data-bbox="201 243 553 279">Extradural hematoma</p>  <p data-bbox="246 327 667 716"> <small> Ser: 2/3 Im: 20/1 Ax: 1751.7 (CO) 512 x 512 FC27 R L 120.0 kV 150.0 mA 5.0 mm/0.1 Tilt: 24.0 1.5 s Lin:DCM/Lin:DCM/Id:ID W:80 L:35 P1 </small> </p> | <ul data-bbox="816 243 1425 846" style="list-style-type: none"> - Non-contrasted brain CT, axial view, soft tissue window - Right-sided frontoparietal hyperdense lesion - At the level of the lateral ventricles - Mass effect: midline shift to contralateral side, effacement of sulci, compressed ipsilateral lateral ventricle - Arterial source of bleeding, most likely middle meningeal artery - Management includes craniotomy, evacuation of the hematoma, and stopping bleeding |
| <p data-bbox="201 936 623 972">Acute subdural hematoma</p>  | <ul data-bbox="816 936 1425 1413" style="list-style-type: none"> - Non-contrasted brain CT, axial view, soft tissue window - Left-sided frontoparietal hyperdense lesion - Lesion is crescentic in shape - Mass effect: midline shift to contralateral side, effacement of sulci, compressed ipsilateral lateral ventricle - Venous source of blood, most likely bridging veins |

Subacute subdural hematoma



- Non-contrasted brain CT, axial view, soft tissue window
- Right-sided frontoparietoccipital isodense lesion
- Mass effect: midline shift to contralateral side, effacement of sulci, compressed ipsilateral lateral ventricle

Chronic subdural hematoma



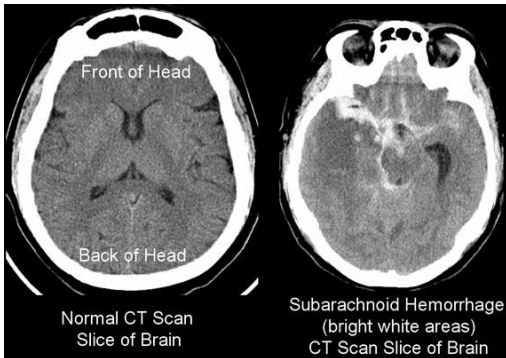
- Non-contrasted brain CT, axial view, soft tissue window
- Left-sided frontoparietoccipital hypodense lesion
- Mass effect: midline shift to contralateral side, effacement of sulci, compressed ipsilateral lateral ventricle
- Venous source of blood, most likely bridging veins

Subdural hematoma



- Acute on chronic subdural hematoma
- Chronic subdural hematoma with sedimentation of blood

Subarachnoid hemorrhage


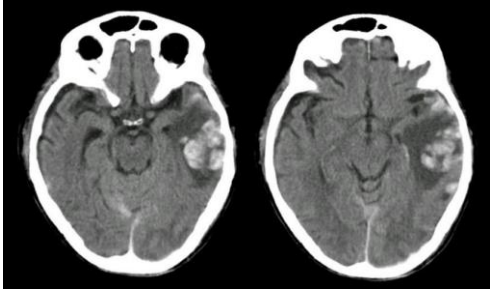
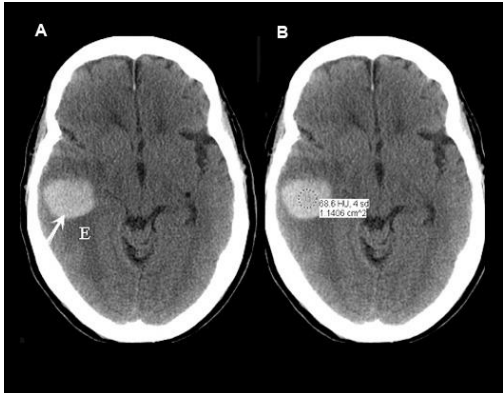


(1)

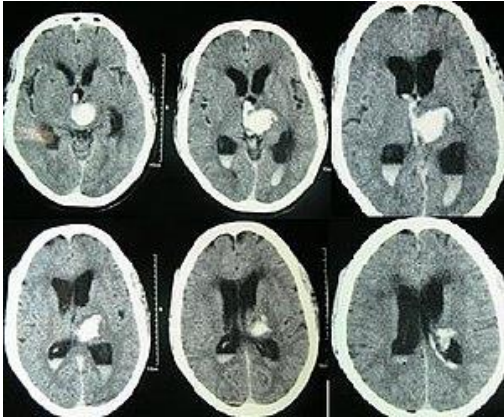
- Non-contrasted brain CT, axial view, soft tissue window
- Right-sided subarachnoid hemorrhage appearing hyperdense (acute blood)
- Most common presentation is a traumatized patient, with a GCS of 9

(2)

- Spontaneous SAH; most likely due to a ruptured aneurysm
- A cistern is a specific dilatation of the subarachnoid space

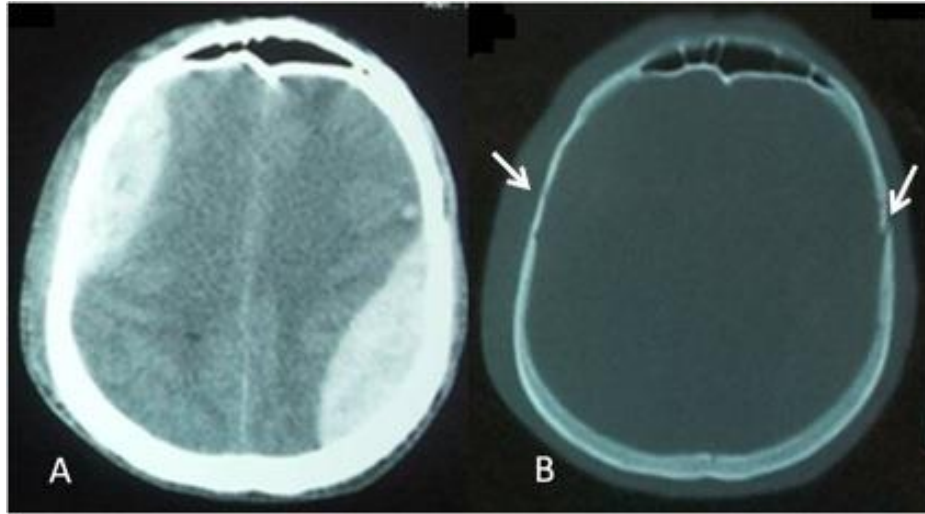
| Intra-axial lesions | Comment |
|---|--|
| <p data-bbox="203 243 457 277">Brain contusion</p>   | <p data-bbox="824 243 873 277">(1)</p> <ul data-bbox="873 285 1416 630" style="list-style-type: none"> - Non-contrasted brain CT, axial view, soft tissue window - Focal brain lesion in the frontal lobe - Acute lesion; hyperdense lesion (intracerebral hemorrhage) surrounded by a hypodense area (edema) <p data-bbox="824 764 873 798">(2)</p> <ul data-bbox="873 806 1351 932" style="list-style-type: none"> - Temporal brain contusion - Most likely presents with a history of trauma |
| <p data-bbox="203 1113 620 1146">Intracerebral hemorrhage</p>  | <ul data-bbox="873 1113 1416 1545" style="list-style-type: none"> - No history of trauma - Cause is most likely medical (hemorrhagic stroke) - In most cases, patients are hypertensive, and may present complaining of a sudden headache - Lesion is hyperdense and is surrounded by a hypodense area (edema) |

Intraventricular hemorrhage



- Hyperdense area within the ventricles indicates acute blood
- Intracerebral hematoma extending into a ventricle
- "Fluid level" inside ventricles (gravitational effect)

Bone window



- Skull fractures are either calvarian or basal.
- Calvarian fractures (skull cap fractures) are either linear or depressed. The latter are either simple or compound.
- Basal skull fractures are linear fractures.

| Fracture | Suture |
|-----------------------------|-----------------------|
| Smooth edge | Serrated edge |
| Straight line | Curvilinear |
| Darker on x-ray | Lighter on x-ray |
| Greater in width | Smaller in width |
| Can be anywhere in location | In specific locations |