Lateral Neck Projection Radiography
Laura Hayes, MD

1. **What is a sign of croup on a lateral ST neck radiograph?**
   A. Enlarged tonsils
   B. Hyperinflated hypopharynx
   C. Prevertebral soft tissue thickening
   D. Enlarged aryepiglottic folds

   **Correct Answer: B**

   Reference

2. **What is the most common cause of acute epiglottitis in kids?**
   A. Streptococcus pneumoniae
   B. Parainfluenza
   C. H. influenza type B
   D. Moraxella catarrhalis

   **Correct Answer: C**

   Reference

Neuro/Head + Neck: Sinus + Skull: PR or CT?
Thierry A. G. M. Huisman, MD

3. **Complex skull fractures are best seen/evaluated on**
   A. AP and lateral projection radiography of the skull
   B. Axial, 2D CT images of the skull
   C. Multiplanar 2D CT reconstructions (MPR) of the skull
   D. Rotational 3D CT reconstructions of the skull

   **Correct Answer: D**

   Reference
4. Modern high resolution evaluation of the paranasal sinuses requires
   A. A Water’s and Caldwell projection radiography
   B. A Stenver’s and Schuller’s projection radiography
   C. Low dose, limited CT of the paranasal sinuses
   D. Normal dose CT of the skull

   **Correct Answer: C**

Reference

**Things Not to Miss on Head CT**
_Diana P. Rodriguez, MD_

5. Which of the following statements is true regarding subpial hemorrhage/hematoma?
   A. They are most common in young school-age children.
   B. They can be differentiated from subdural hemorrhage/hematomas on CT.
   C. They require immediate evacuation.
   D. They cannot resolve spontaneously.

   **Correct Answer: B**

**Rationale**
A - They are most common in term neonates and infants. B - They can be differentiated from subdural hemorrhage/hematomas on CT due to configuration and location. Subpial hemorrhage is seen within the cerebral sulci, contouring the cerebral gyri, fluid –fluid levels often present. C- They are treated conservatively. D - They cause less mass effect on the brain parenchyma than subdural collections.

**References**
6. Which of the following statements is true regarding enlarged subarachnoid spaces of infancy?
   A. They cause flattening of the adjacent brain parenchyma.
   B. They show higher attenuation than ventricular cerebrospinal fluid.
   C. They usually resolve around 2 years of age.
   D. They displace cortical veins.

   Correct Answer: C

Rationale
A - They do not cause flattening of the adjacent brain parenchyma. The cerebral sulci are prominent and the gyri are not flattened. B - They show the same attenuation as ventricular cerebrospinal fluid. C - They usually resolve around 2 years of age in developmentally normal children. Often seen in children with macrocrania. D - Cortical veins transverse the subarachnoid CSF spaces.

References

Imaging Shunt Malfunction: DR, CT, MR
Susan Palasis, MD

7. What is the most common imaging sign of increased intracranial pressure?
   A. Flattening of the posterior globes
   B. Low cerebellar tonsils
   C. Empty sella
   D. Large ventricles

   Correct Answer: A

Rationale
Flattening of the posterior globes reflects the transmission of elevated perioptic CSF pressure on the compressible posterior sclera. Studies have found it to be one of the most specific indicators of increased ICP. Answer B is incorrect. Explanation: This is a finding seen with intracranial hypotension. Answer C is incorrect. Explanation: Can be seen with increased ICP but is nonspecific and not the most common finding. Answer D is incorrect. Explanation: Chronically shunted patients with stiff ventricles may not show significant change in ventricular size.
8. **What is the most sensitive MRI sign of hydrocephalus?**
   A. Papilledema.
   B. Sutural splaying.
   C. Enlargement of the temporal horns.
   D. Venous expansion.

   **Correct Answer: C**

   **Rationale**
The temporal horns dilate sooner than the frontal horns which may be because they are less resistant to pressure or due to CSF flow dynamics. Answer A is incorrect. Explanation: Papilledema occurs with increased intracranial pressure and is not always present in hydrocephalus. Answer B is incorrect. Explanation: Sutural splaying only occurs with unfused sutures. Answer D is incorrect. Explanation: Venous expansion occurs with intracranial hypotension.

**References**