

Interactive case questions:

Question 1: A 35 years old male patient without any past medical history, underwent right knee meniscal tear repair surgery under epidural anesthesia and later had severe headache that made him to vomit multiple times. Neurological examination was unremarkable with GCS 15/15. Urgent CT head was performed and showed multiple air pockets in the brain without air fluid level. His vital signs are normal. What is the diagnosis?

- A- Septic emboli
- B- Pneumocephalus
- C- Metastatic brain disease
- D- Tuber sclerosis

Correct answer B:

Explanation: Air introduction in the brain after epidural anesthesia that can lead to pneumocephalus. It is also seen post lumbar puncture. The patient unremarkable past medical history rules out option C and D. Furthermore, his vital signs are normal therefore option A is also less likely.

Question 2: What is initial diagnostic modality for “Pneumocephalus”?

- A- MRI Brain
- B- Pet CT
- C- CT head with contrast
- D- Plain head CT

Correct answer D:

Explanation: The initial gold standard diagnostic modality for Pneumocephalus is plain CT head without contrast which can urgently be performed. MRI brain takes time and can be performed later, however initially for suspected cases plain CT head is considered. PET CT is considered usually for tumors or metastasis. While, CT head with contrast includes vascular anatomy as well which is not relevant to diagnosing Pneumocephalus initially.