A 57-year-old hypertensive, non-diabetic ex-smoker male presented with a history of productive cough and left sided upper back pain with radiation of the pain to the front of the chest and left shoulder and arm for last 3 months. The pain was gradual on onset and now persistent, moderate in intensity and unremitting in nature. He also lost a significant amount of weight over this period.

On examination, he was generally emaciated, mildly anemic and his vitals were within normal limit. He had left sided incomplete ptosis of recent onset; pupils were equally reactive to light and normal in diameter in both eyes. He also had left sided non-pulsatile engorged neck vein, there were no palpable peripheral lymphadenopathy. There was coarse crepitations involving whole lung field but most prominent over left apex with rhonchi. Neurological examination of upper limbs revealed intact sensory and motor functions.

His full blood count showed, neutrophilic leucocytosis with markedly elevated ESR (100 mm in 1st hour), severe hyponatremia (117 mmol/L).

Question 01: Write the radiological abnormalities in the chest x-ray and the CT chest.

Question 02: Mention 4 clinico-radiological differentials for this case.

Question 03: What are the best diagnostic modalities?

Question 04: Mention 3 possibilities if this patient presents with seizure.