A 14 year old girl presented to the emergency with fever, cough, right sided chest pain and swelling of neck and jaw for past 14 days. Fever was high grade, remittant, associated with chills and rigor. Cough was mucopurulent profuse, chest pain was diffuse, sharp stabbing. The swelling was present in submandibular area, tender, gradually progressive. She had a past history of recurrent URTI. No contact history of Tuberculosis. Chest X-ray showed bilateral pleural effusion right sided more than left side. USG of neck swelling revealed multiple bilateral large cervical lymph nodes and abscess collection with bilateral internal jugular venous thrombosis. USG of thorax revealed moderate right sided pleural effusion and mild left sided pleural effusion . Blood reports showed TLC of 17800, neutrophilia, CRP: 15. Pleural fluid analysis showed: Neutrophils: 88% , cell count: 4000/mm3, no malignant cells, protein : 5.7 mg/dl, LDH: 305 IU/L (Serum LDH : 450 IU/L), pleural fluid ADA: 112.8. Pleural fluid CBNAAT showed MTB not detected, AFB stain, Gram stain both were negative and culture sensitivity showed no growth. Serum D-Dimer was above 10000 ng/ml. She was started on conservative management and improved drastically after 14 days with near complete resolution of symptoms.

- What is your provisional diagnosis?
  A: This is a case of lemierre syndrome

- Justify points in favour of your diagnosis.
  A: The female has history of URTI and neck swelling
gradually progressive neck swelling accompanied by cervical lymphadenopathy and internal jugular venous thrombosis. This is associated with bilateral pleural effusion. Hence the triad of sepsis, IJV thrombophlebitis, pleuroparenchymal involvement and metastatic abscess confirms this syndrome. Here there is sepsis indicated by raised TLC, CRP, IJV thrombus confirmed by USG Neck and complicated parapneumonic effusion/ metastatic empyema.

- What is the etiology?
  A: Lemierre syndrome is mainly caused by an anerobic organism *Fusobacterium necrophorum*. Other bacteria include oral anaerobes, *Eikinella*, *Porphyromonas*, *Streptococcus pyogenes* and catheter associated *Staphylococcus* or *Streptococcus*.

- Discuss the management
  Intravenous antibiotics: Beta lactamase resistant antibiotics like piperacillin-tazobactam or cefoperazone-sulbactam along with Clindamycin or metronidazole having anaerobic coverage with LMWH 40 IU SC Twice daily as an anticoagulant until DDimer normalises. It takes 2-6 weeks to completely resolve. Further CT pulmonary angiography, CECT whole abdomen should to performed to check metastatic absences.

- Name some of the complications of this disease.
  A: Septic emboli to lungs heart kidney liver bone marrow, empyema, septic arthritis, renal failure, hepatic dysfunction, cerebral edema.