Usual cases presenting unusually

Dr Sajjan Rajpurohit
Director Medical Oncology
BLK MAX hospital

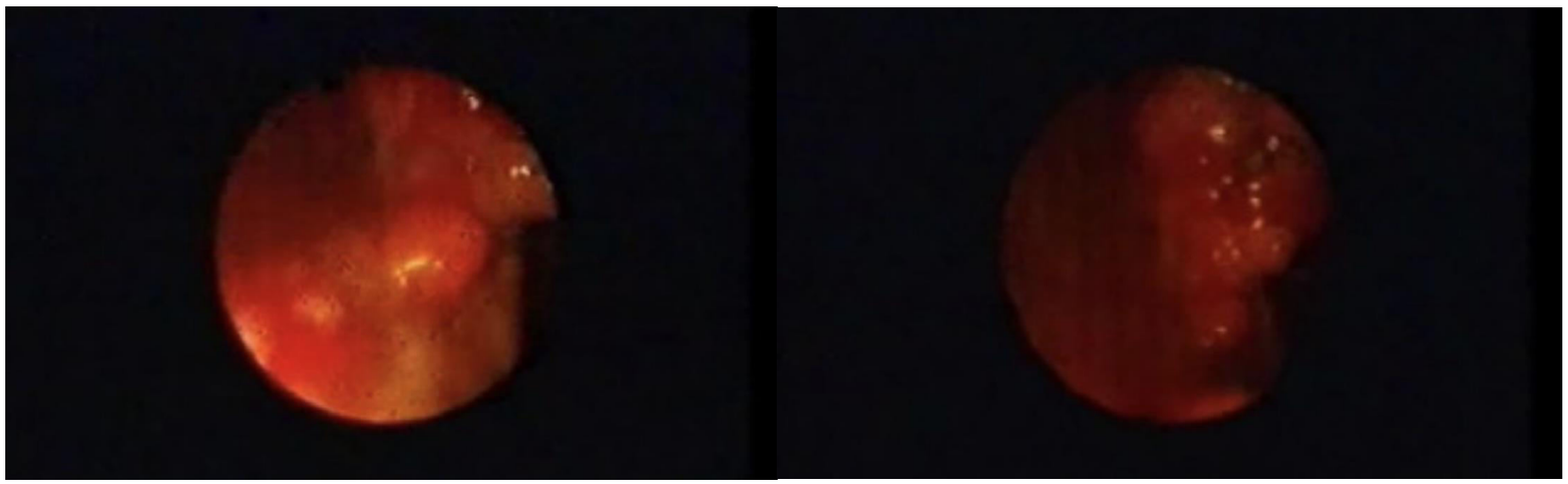
Missed Gastric Cancer

- A 73-year-old male presented with a two month history of epigastric pain, vomiting, anorexia and weight loss.

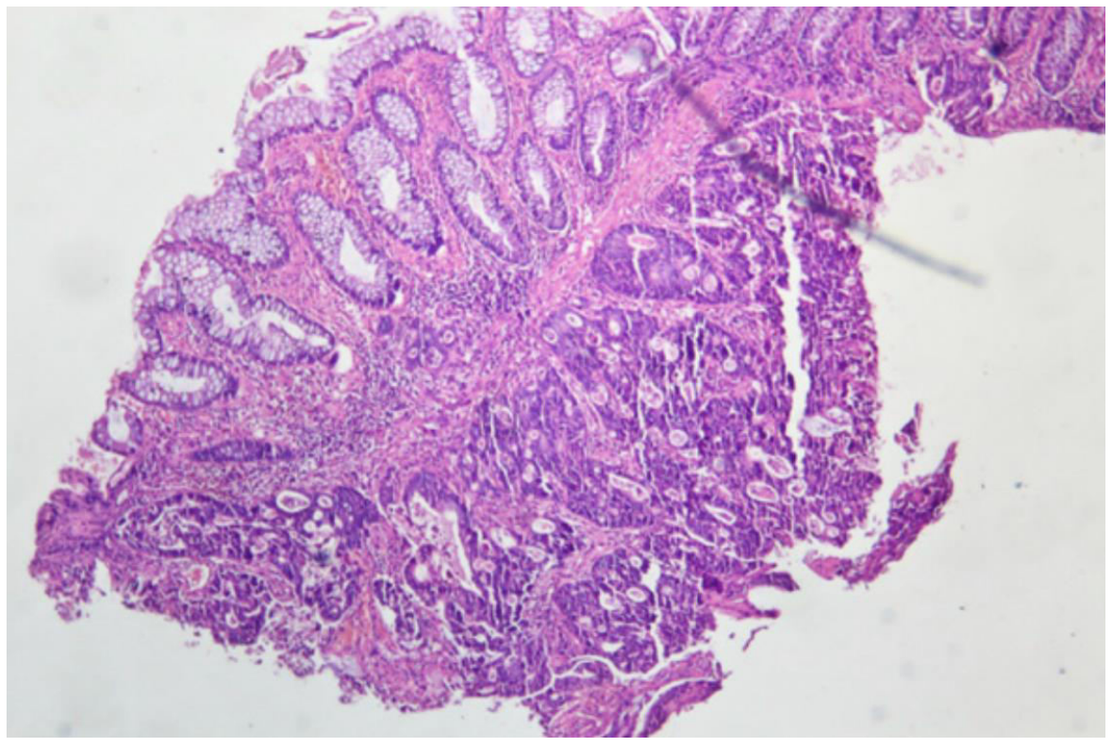
- He had a history of peptic ulcer, being medically managed. Oesophago-gastro-duodenoscopy (OGD) was performed by a trainee under the guidance of a senior endoscopist.

- A benign looking stomal ulcer was identified but biopsies were not taken. A PPI was prescribed and a follow up OGD recommended.

- The OGD was repeated by a more experienced endoscopist two months later and revealed an unhealed stomal ulcer and a protruding swelling.



- Biopsy revealed a moderately differentiated adenocarcinoma.



- The patient was referred to a Cancer Institute and died two months later.

Points missed…

- Alarm symptoms had been present at the time of the initial endoscopy and a gastric ulcer had been found in a patient with gastro-enterostomy but no biopsies were obtained.

- A careful clinical assessment was not made before endoscopy taking into account risk factors for cancer and the clinical presentation.

Take home points…

- All gastric ulcers must be biopsied and a repeat endoscopy should be performed following a course of acid suppression and/or Helicobacter pylori eradication.

- Endoscopists must always have a high index of suspicion of gastric ulcers and be prepared to repeat an endoscopy at an early stage if the findings are equivocal or poor views are obtained.

A tricky gall bladder

- A **80-year-old female** presented with persistent onset of epigastric pain and vomiting for one month.
- On physical examination she was acutely ill with respiratory distress and pleural effusion.
- She was afebrile (36.5 °C). Her pulse rate and blood pressure were 101/min and 115/60 mmHg, respectively.

- The abdomen was tender but there was no physical sign of peritonitis.

- Abdominal ultrasonography showed **thickened gallbladder wall with multiple gall stones** in favor of acute calcular cholecystitis without obvious mass.
- Computed tomography (CT) was not done preoperatively, as no suspicion found with ultrasonography.
- With the presumptive diagnosis of acute on chronic cholecystitis, the patient received supportive care and antibiotics. Then, she underwent laparoscopic cholecystectomy.

- **During laparoscopy, anatomy was disturbed and GB was embedded in the liver which was very hard. So, conversion to laparotomy was made.**

- Duodenum, omentum and transverse colon were dissected from GB. The fundus of GB found to be occupied with a mass partly hard and partly necrotic. Also, the liver bed found to be invaded.

- GB was opened accidentally and many stones were removed.
- Cholecystectomy was done with resection of that part of the liver that was hard and the specimen was sent to histopathology.

- No lymph nodes were enlarged. Gross examination of the gallbladder revealed only wall thickening of 3.5cm. **No lymph nodes were dissected.** The liver part was received as three friable pieces of tissue, the largest was 8x8cm and the smallest was 4.5x3 cm

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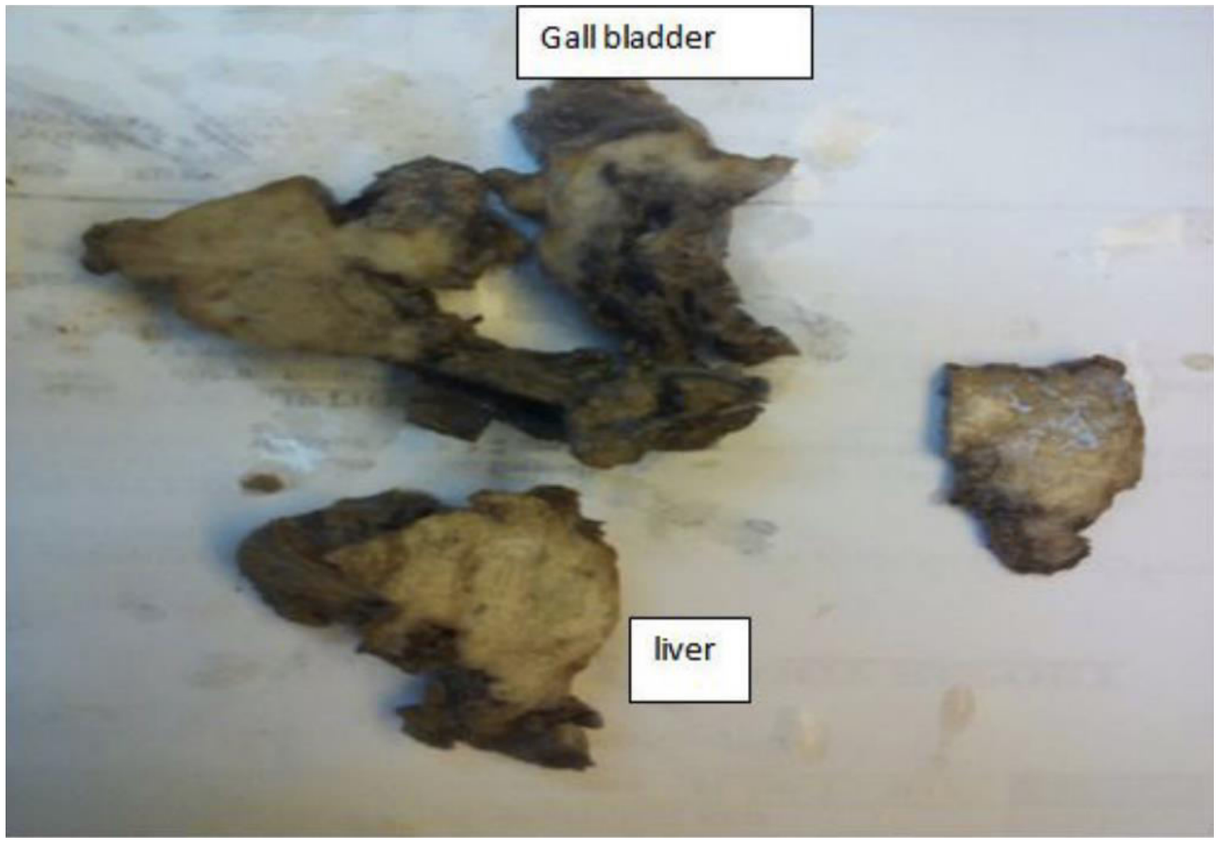
- Microscopic evaluation for the gall bladder revealed a **well to moderately differentiated keratinized SCC** invading full wall thickness to the serosal surface.
- . The examined sections from the liver showed infiltration by keratinized moderately differentiated SCC with extensive areas of necrosis and fibrosis.



Gross findings of resected gall bladder and liver: The wall of the gall bladder is thick

- **GBC is asymptomatic at early stages**.
- When symptomatic, the presentation is similar to biliary colic or cholecystitis[2].
- If both are present in an elderly patient accompanied by weight loss and anorexia, gall bladder cancer should be considered[3].
- Hepatic metastases are more frequent in SCC than adenocarcinoma of the gallbladder[1].
- SCC is usually diagnosed when the tumour is large in size and locally advanced. SCC growth is faster, more aggressive and worse in prognosis than adenocarcinoma[4].

1. Roa JC, Tapia O, Cakir A, Basturk O, Dursun N, et al. (2011) Squamous cell and adenosquamous carcinomas of the gallbladder: clinicopathological analysis of 34 cases identified in 606 carcinomas. Mod Pa
2. Gupta S, Gupta SK, Aryya NC (2004) Primary squamous cell carcinoma of gallbladder presenting as acute cholecystitis. Indian J Pathol Microbiol 47: 231-3.
3. D'Angelica, Jarnagin W (2006) Tumors of the Gall-bladder, In B. L. Saunders, Ed., Surgery of the Liver, Biliary Tract, and Pancreas, 4th Edition, Elsevier, Amsterdam, 2006, pp. 764-781.
4. Rekik W, Ben Fadhel C, Boufaroua AL, Mestiri H, Khalfallah MT, Bouraoui S et al. (2011) Case Report: Primary Pure Squamous Cell Carcinoma of the Gallbladder. J Visc Surg 148: e149-51.

- **Laparoscopy should not be done if gallbladder cancer is suspected. If during initial laparoscopy the diagnosis is suspected, conversion to an open laparotomy should be done for a curative resection[3].**
- Cytology studies of biliary fluid should be investigated as a preoperative potential safe tool for the early detection and diagnosis of SCC of the gallbladder[2,4].

1. Liang JL, Chen MC, Huang HY, Ng SH, Sheen-Chen SM, et al. (2009) Gallbladder carcinoma manifesting as acute cholecystitis: clinical and computed tomographic features. Surgery 146: 861-8.
2. Gupta S, Gupta SK, Aryya NC (2004) Primary squamous cell carcinoma of gallbladder presenting as acute cholecystitis. Indian J Pathol Microbiol 47: 231-3.
3. D'Angelica, Jarnagin W (2006) Tumors of the Gall-bladder, In B. L. Saunders, Ed., Surgery of the Liver, Biliary Tract, and Pancreas, 4th Edition, Elsevier, Amsterdam, 2006, pp. 764-781.
4. Chambers MR, Hasan MK, H´ebert-Magee S (2016) Pearls before bile: primary squamous cell carcinoma of the gallbladder diagnosed on-site by endoscopic ultrasound-guided fine needle aspiration. Dig En

Take home points…

- The initial diagnosis of gall bladder cancer should be made by clinical history, abdominal USG and CT.

- GBC should be suspected in elderly patients with diffuse thickening of GB wall.

- Radical resection of the gall bladder is the mainstay of treatment for patients with locally invasive SCC and offers the only chance for cure.

- **The extent of tumour invasion at the time of diagnosis is the most important parameter for survival**.

The unusual hemorrhoid..

- A 79-year-old male, history of AF, Type 2 DM presented with **rectal bleeding** and large thrombosed internal hemorrhoids were seen during sigmoidoscopy.

- He reported intermittent hematochezia and denied rectal pain or changes in the frequency, consistency or caliber of bowel movements.

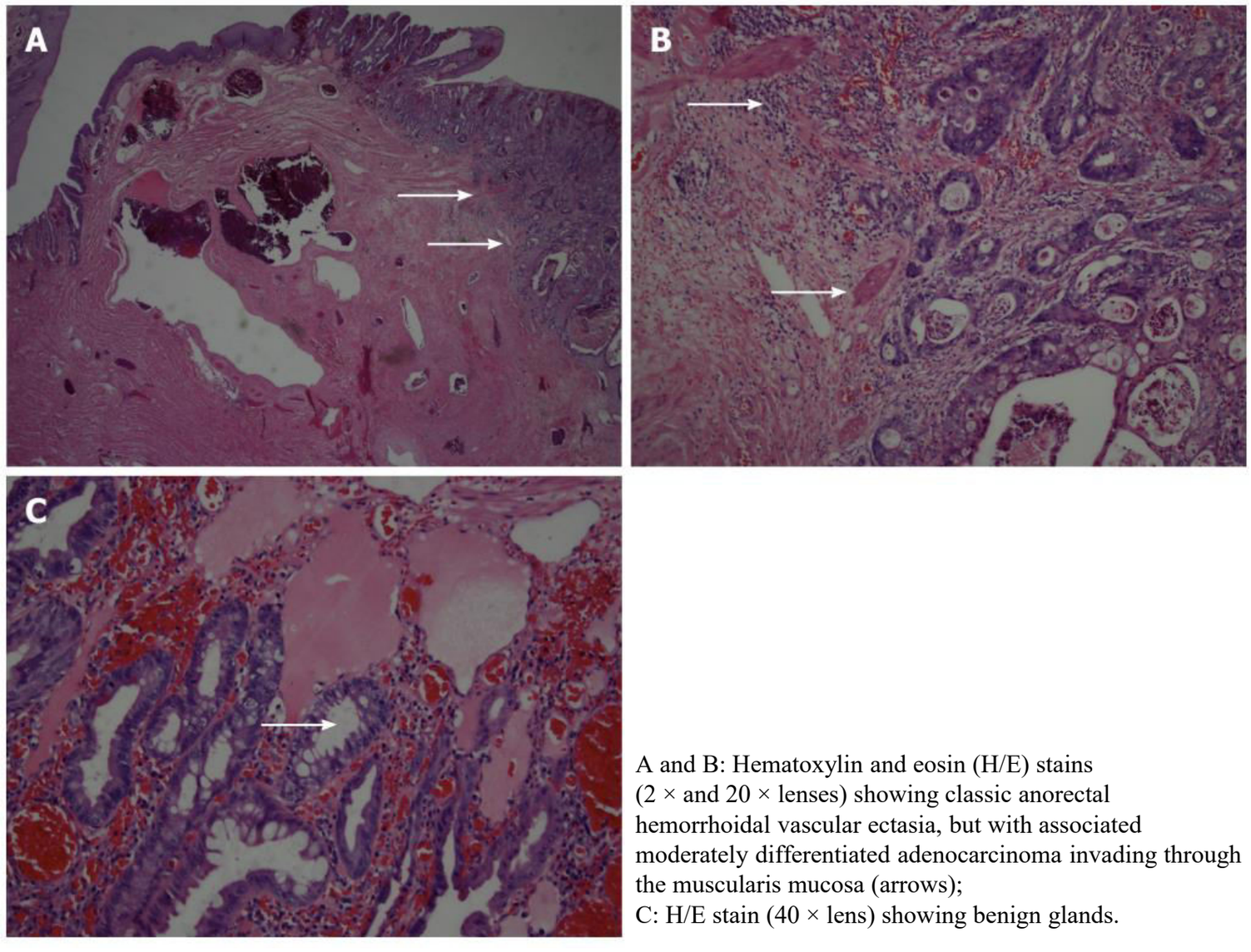
- There was history of previous laser ablation for bleeding hemorrhoids 3 months back.

- The patient subsequently underwent an uneventful threecolumn hemorrhoidectomy.

- The internal hemorrhoids were identified, excised, and sent for routine pathologic evaluation.

- Pathologic analysis revealed the left lateral hemorrhoid column positive for a 1.5 cm **moderate-to-poorly differentiated adenocarcinoma.**

- The tumor showed superficial invasion into the submucosa along with a focus that was suspicious for lymphatic invasion.



A and B: Hematoxylin and eosin (H/E) stains (2 × and 20 × lenses) showing classic anorectal hemorrhoidal vascular ectasia, but with associated moderately differentiated adenocarcinoma invading through the muscularis mucosa (arrows);
C: H/E stain (40 × lens) showing benign glands.

- The case was referred to a dedicated cancer centre. Further evaluation showed another lesion in the descending colon, which was confirmed to be adenocarcinoma.

- He underwent PET CT for staging and was found to have lymph nodal and liver metastases. He was started on palliative chemotherapy.

Take home points…

- History of recurrent hemorrohids and rectal bleed in elderly show raise suspicion for a colorectal malignancy.

- **Colonoscopy should be performed whenever in doubt, before taking up for surgery.**

An unsual Pancytopenia

- 62-year-old man with a history of chronic obstructive pulmonary disease (COPD), had been admitted to an outside hospital for possible pneumonia.
- Upon admission, he was found to have pancytopenia with white blood cell (WBC) 2600, hematocrit 36.6%, platelet count 62,000, and absolute neutrophil count (ANC) 598.
- As the ANC continued to downtrend, a physician saw the patient and commented that the "pancytopenia is likely from transient myelosuppression from pneumonia".
- He was released from the hospital five days later with antibiotics.

- Nine days later, he saw his family doctor for follow-up who re-assured him.

- Routine blood work a few days later revealed worsening pancytopenia.
- He was advised to go to the emergency room and was admitted to the hospital.
- The day following admission, flow cytometry was sent due to high suspicion of leukemia.

- A week later, almost three and a half weeks after this initial presentation of pancytopenia, with ANCs reaching as low as 280, results confirmed diagnosis of **AML** and chemotherapy was initiated.

- The patient began to decline rapidly and was transferred to ICU.

- There, he experienced respiratory failure that required intubation. A few days later, the decision to hold chemotherapy was made.

- The patient became anuric and ultimately developed vancomycin-resistant Enterococcus (VRE) bacteremia. The patient died less than a week later.

- While it is true that infection can cause pancytopenia, the five leading infectious causes of pancytopenia are AIDS, septicemia, enteric fever, tuberculosis, and viral hepatitis[2].
- Our patient presented initially with a community-acquired pneumonia without evidence of septicemia. The presence of metamyelocytes on the peripheral smear should have raised concern for a new hematologic malignancy.
- Currently, approximately 65-70% of adult AML patients <60 years old and 25-40% of patients who are >60 years old reach a complete remission with treatment[1,3].
- It is possible that early detection, diagnosis, and treatment of our patient's AML could have prevented his rapid deterioration and ultimate death.

1. Acute myelogenous leukemia . (2019). Accessed: September 20, 2018:

Take home points..

- **Evaluation of cytopenias should be done to find out the underlying cause.**

- Flow Cytometry from peripheral blood can help clinch the diagnosis in many cases and may avoid the need for a bone marrow examination in some cases.

- **<u>Time is everything in treatment of blood cancers.</u>**

Hodgkin’s Lymphoma with TB

- A 29 year old woman presented to the local hospital with complaints of **breathlessness and cough with expectoration for duration of eight weeks**.

- On examination she was found to have **enlarged cervical lymph nodes**.

- Excision biopsy of the nodes were done and were subjected to histopathological examination (HPE), which revealed features suggestive of **tuberculosis** (TB), and hence the patient was started on anti tuberculous therapy (ATT) (isoniazid, rifampicin, pyrazinamide and ethambutol).

- She was reviewed and there was no alleviation in her symptoms and increase in size of her cervical nodes in spite of her strict adherence to ATT therapy.

- A CT scan of thorax revealed enlarged paratracheal, subcarinal and hilar lymph nodes.

- An endobronchial ultrasound (EBUS) guided transbronchial needle aspiration (TBNA) of the enlarged nodes was done to reconfirm the diagnosis, HPE of which revealed a **granulomatous inflammation**.

- Though the tissue was negative for acid fast bacilli (AFB) on smear's test, she was continued on ATT due to the endemicity of TB in our country.

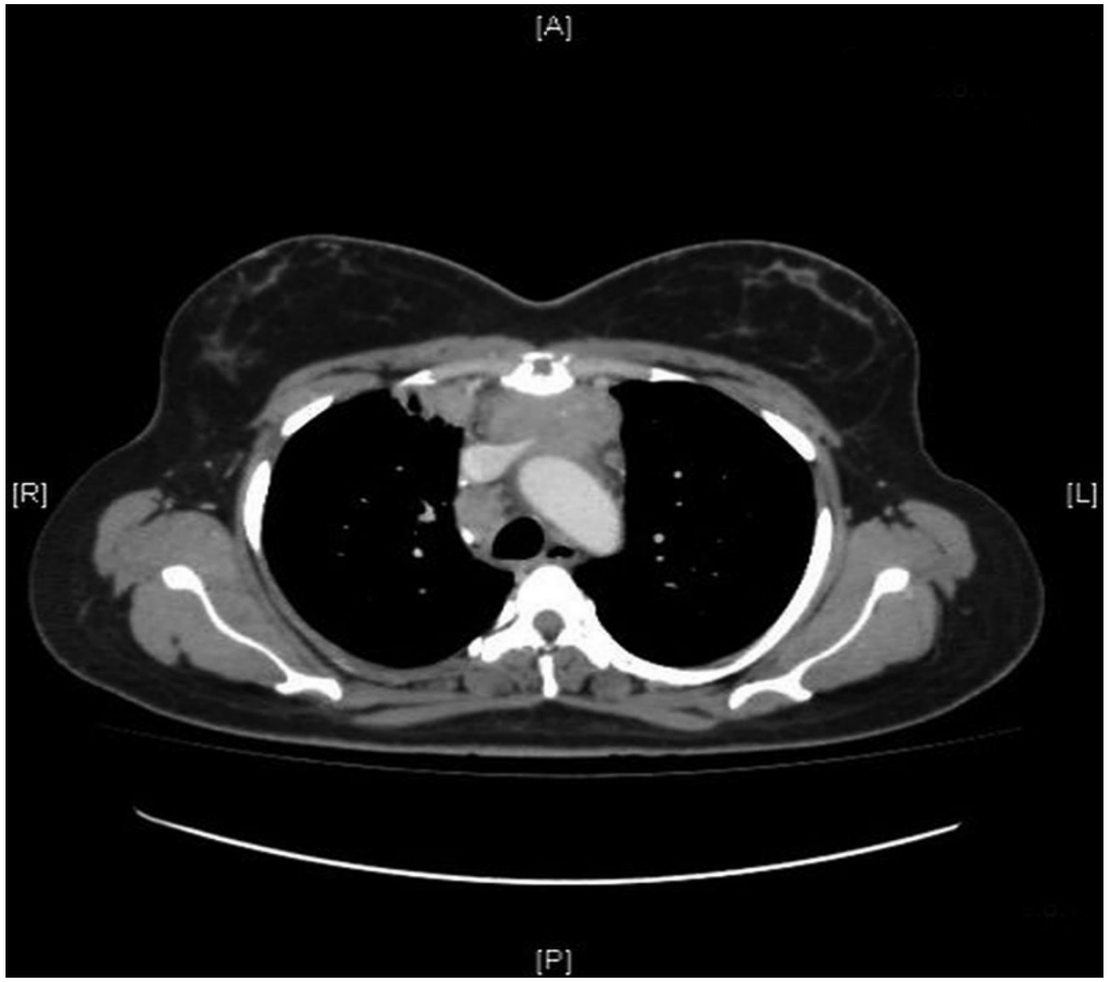
- One month later, her symptoms had subsided while her cervical nodes did not show any signs of regression.

- Her EBUS TBNA samples which were sent for AFB culture turned out to be positive.

- As her drug sensitivity patterns were not available at that point of time she was advised to continue the same ATT regimen.

- Three months later she returned to the hospital with complaints of cough, right sided chest pain and hemoptysis.

- A CT scan of her thorax was repeated, it showed an increase in the size of mediastinal nodes compared with her previous scan.

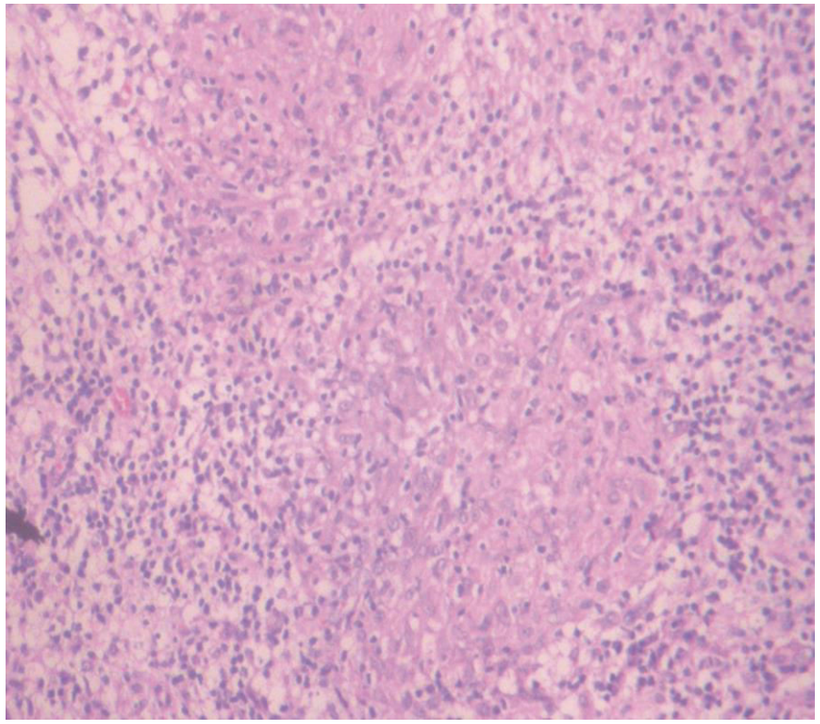


CT chest with contrast showing enlarged upper mediastinal and right lower paratracheal lymph nodes

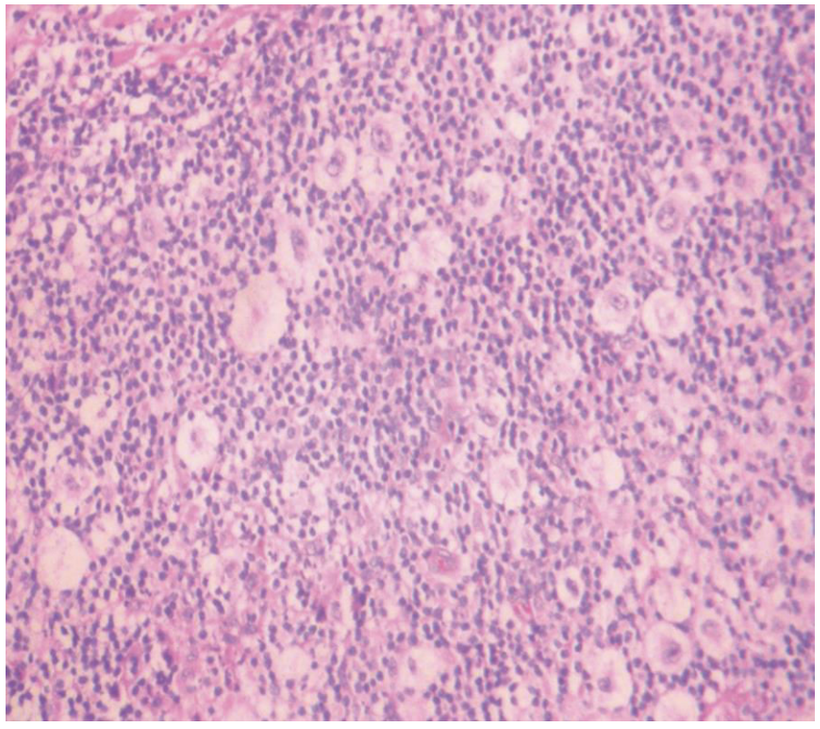
- She was subjected to mediastinoscopy which revealed mediastinal nodes adherent to trachea and great vessels.

- HPE of the nodes revealed features consistent with Hodgkin's lymphoma, nodular sclerosing variant, along with necrotising granulomatous inflammation.[2,3]

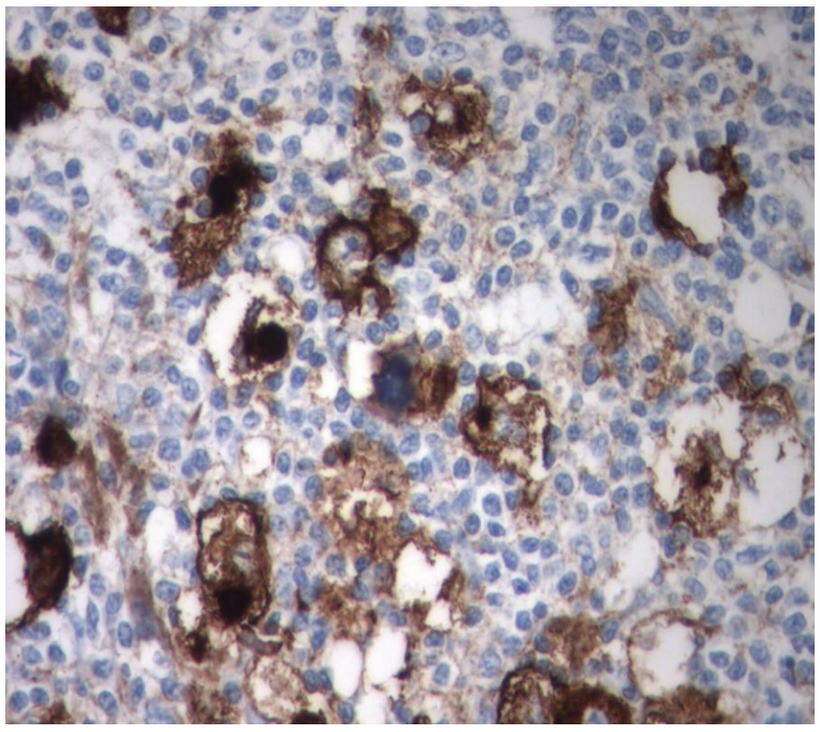
- Immunohistochemistry confirmed the diagnosis.
- Disease was classified as stage 2 Hodgkin's lymphoma.



Photomicrograph showing under light microscopy showing Granulomas



Photomicrograph showing with under light microscopy showing Lacunar Reed-Sternberg cells



Photomicrograph showing with Immuno histochemical stains showing Reed-Sternberg cells showing CD15 positivity

- She received chemotherapy (adriamycin, bleomycin, vinblastine, dacarbazine) for six cycles, followed by external beam radiotherapy on the linear accelerator, using 6 MV photons, a dose of 30 Gy in 15 fractions, delivered to the mediastinal tumour bed by image-guided radiation therapy (IGRT) technique.

- She was advised to continue her ATT for a duration of nine months.

- A positron emission tomography (PET) scan was done after the completion of chemo- radiotherapy that showed no lresidual disease. As she has improved clinically, further follow-up on OPD basis is being done.

- Concomitant presentation of TB and lymphoma is a rare entity.
- A primary malignancy like Hodgkin's lymphoma may cause a suppression of the cell-mediated immunity which predisposes to a concomitant TB infection.[1-3]
- Misdiagnosis or delay in diagnosis of both TB and Hodgkin's disease may occur because of similar signs and symptoms like cough, fever, loss of appetite, loss of weight, night sweats, hepatosplenomegaly and mediastinal adenopathy.
- Immunosuppression is the main cause of Mycobacterial infection in Hodgkin's disease and TB is the main cause of mortality in such cases.
- Some of the largest case series published by Kaplan et al. have reported 201 cases of malignancies complicated by TB of which there were higher chances of reactivation among patients with Hodgkin's disease.[4]
- The pathogenesis hypothesised is that, Mycobacterial tuberculous infection causes direct DNA damage[5-7] and apoptosis inhibition, which increase mutagenesis of progeny cells, combined with angiogenesis favoring tumorigenesis.

- EBUS-guided TBNA is not considered to be an excellent tool for diagnosis of lymphoma unless one has facilities for Flourescent In Situ Hybridization (FISH) technology.[15]

- In one of the studies by Chrissian et al., EBUS did not give any results in four of the cases.
- In contrast when they used the micro forceps biopsy (MFB) in the same patient their yield went up to 100%.[16]

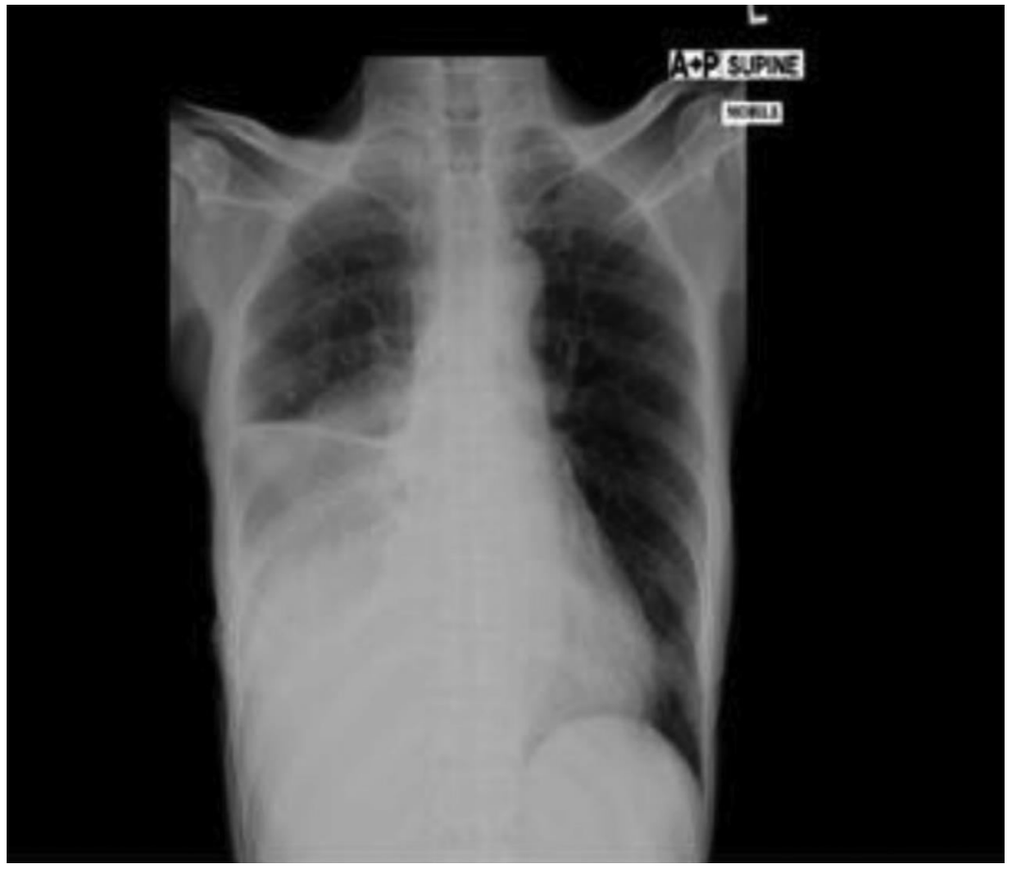
- Hence it has to be kept in mind if lymphoma is one of the diagnostic considerations EBUS has to be used only when one has an access to MFB.
- Otherwise mediastinoscopy has to be used as one gets better and larger samples for HPE and cultures as happened in our case.

An unsettling cough…

- A 64-year-old para 4, post-menopausal housewife, HTN
- Cough, shortness of breath, haemoptysis and occasional chest pain for the past 10 weeks.
- Active in terms of her activities of daily living.
- Chest radiograph (CXR) done, treated as **community-acquired pneumonia**.
- She was reassured that there was no need to be worried as a course of antibiotic would be prescribed for her condition.
- Her symptoms did not improve even after completing the course of antibiotic.
- The family members started to worry about her after **three months of unresolved symptoms** and decided to come to the hospital for a second opinion instead of going back to the previous doctor.

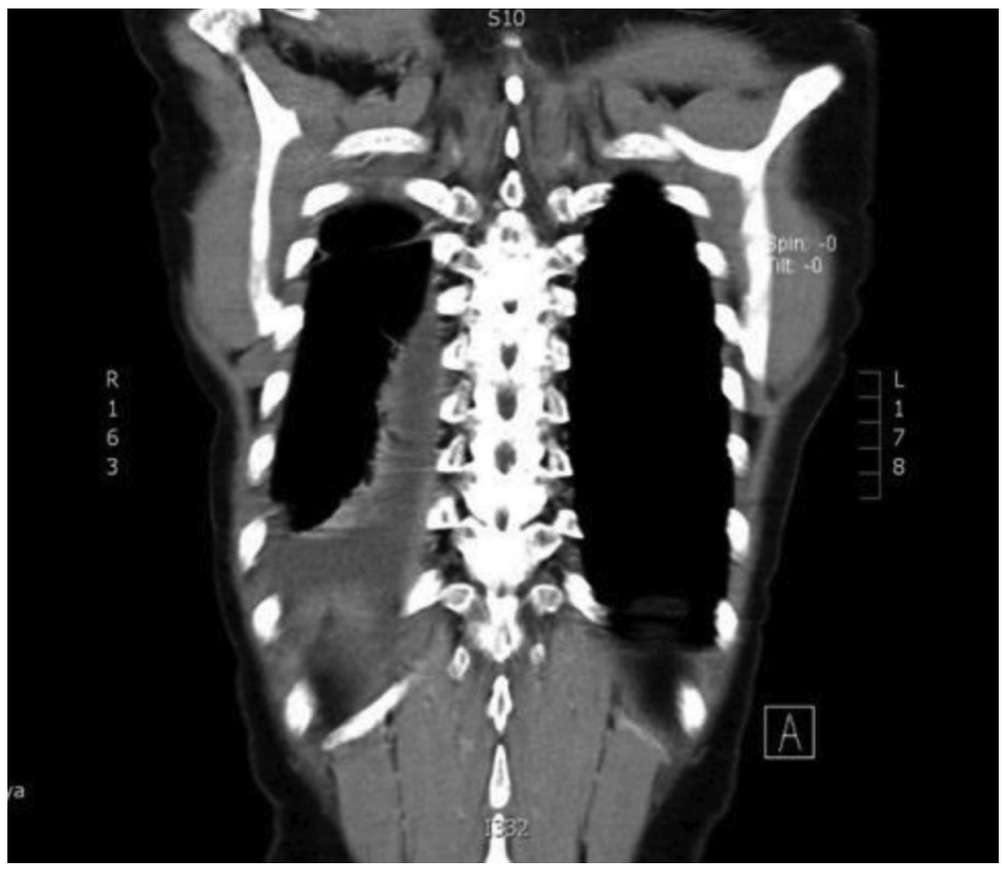
- She was not a primary or secondary smoker, denied having any symptoms of fevers, night sweat and did not have any other known risk factors for developing lung cancer.
- There was no family history of malignancy as well.
- Upon examination, she appeared thin, there was no jaundice. Dilated vein was noted on the anterior chest wall and finger clubbing was also present. There was no cervical lymphadenopathy or facial swelling noted.
- Her respiratory rate was 18 breaths per minute, blood pressure of 156/ 80 mmHg, pulse rate of 80 beats per minute with a BMI of 20.1 kg/m2 .
- The chest expansion and air entry were reduced together with stony dullness noted on the lower zone of the right lung.
- There was no crepitation or rhonchi heard.
- There was a palpable liver, which is firm in texture and measuring about 2cm below the right costal margin.
- Breast and spine examinations were also normal.

- However, her CXR which was done in the clinic showed an ill-defined opacity and consolidation at the right middle lobe, with an ill-defined mass obscuring right heart border.



- There was a large right pleural effusion with an elevated right horizontal fissure seen.

- Subsequently Computed tomography (CT) scans and bronchoscopic guided biopsy of the chest were done two weeks later.



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- Histopathology examination revealed a moderately differentiated adenocarcinoma (stage 4 N2 M1b) of the lung.

- Despite being treated with targeted therapy (Gefitinib), the patient developed brain metastasis. Her condition deteriorated and she succumbed to the disease 18 months after the diagnosis.

Take home points…

- Unresolving cough needs to be evaluated.
- Lung cancer, if detected early, can be cured.
- Timely referral can save lives….

THANK YOU