

A Rare Coexistence of Gastric Malignancy with Tuberculosis

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1. Introduction

Although the yearly rate of tuberculosis is falling throughout India, The disease itself remains a potential hazard. Activity of the disease depends on immunological competence of the Host. Malignancy itself may effect bone marrow and cause depletion in all cell lines, thus immune response may not be active. Hence it behaves differently in immunological compromised patients. The dormant bacilli may activate due to disturbed defense mechanism.

2. Case Report

- 76 year gentleman presented with complaints of vomiting for 6 months - immediately after food intake within 30 minutes, containing undigested food particles, not associated with blood in vomitus
- H/O LOA+,
- H/OLOW+ (over 9 kgs in 6 months)

3. Past History

- No known comorbidities
- No H/o previous surgery

On Examination

- Conscious, oriented
- ECOGII
- Thin built, poorly nourished
- No pallor, No left SCLN palpable
- Vitals: BP130/70mm HgPR: 87bpm Spo₂ 97% RA Per Abdomen: Abdomens caphoid, no visible peristalsis No palpable mass, no ascites, no organomegaly DRE: Grade I prostate, no deposits

4. Investigations

CECT Abdomen: Asymmetric enhancing mucosal wall thickening in Antropyloric region of Length 6.5cm and thickness 2.2cm. Multiple subcentimetric perigastric, peripancreatic lymph nodes. Loss of Fat planes between lesion and pancreas with multiple enlarged mediastinal lymph nodes

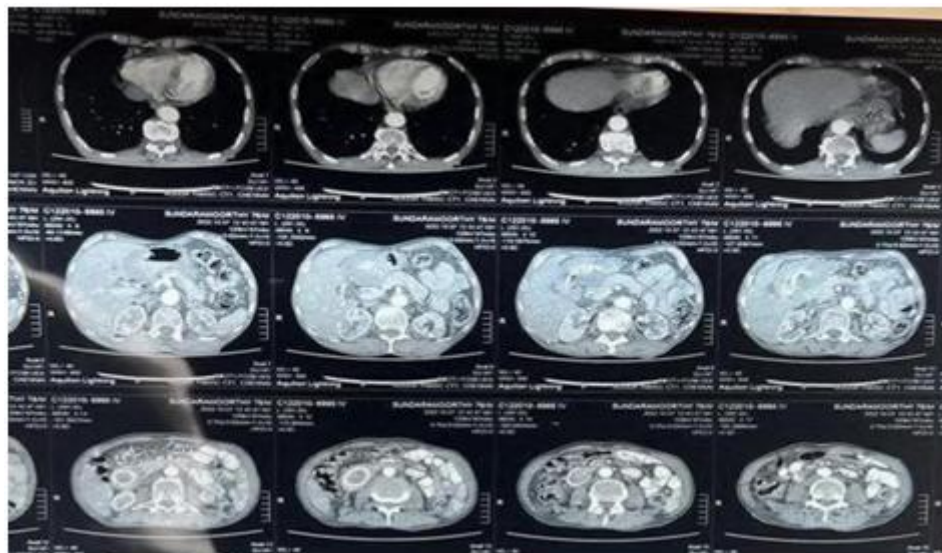


Figure 1: CECT Abdomen Image Showing Antropyloric Growth

UGISCOPY & BIOPSY – Adenocarcinoma intestinal type

EBUS: Right lower paratracheal LN of size 1.5cm with distinct margins

EBUS Guided FNAC of Paratrachealln: Category in on representative

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NAME	:: Mr. Sundaramoorthy	Patient ID	:: 220513001	DATE	:: 13-05-2022
DR.	:: Pulmonary Medicine	Age	:: 76	Sex	:: Male

EBUS REPORT

Instrument : Fujifilm
 Anesthesia : 2 % Lignocaine. Midazolam 2mg. Fentanyl: 50mcg
 Approach : Transoral
 Cervical Nodes : Normal.
 Subcarinal Paratracheal 2R : Normal.
 Subcarinal Paratracheal 2L : Normal.
 Subcarinal Paratracheal 4R : 1.5cm short axis diameter, distinct margin, homogenous echogenicity, surrounded by blood
 Subcarinal Paratracheal 4L : Normal.
 Hilar Lymph Nodes : Normal.
 Station 10R : Normal.
 Station 10L : Normal.
 Station 11R : Normal.
 Station 11L : Normal.
 Procedure : TBNA with two passes with 10 jabs each taken
 Comments : As patient was having desaturation and bp was high, further procedure abandoned.
 Impression : Ca stomach with gastric outlet obstruction with Mediastinal lymphadenopathy.

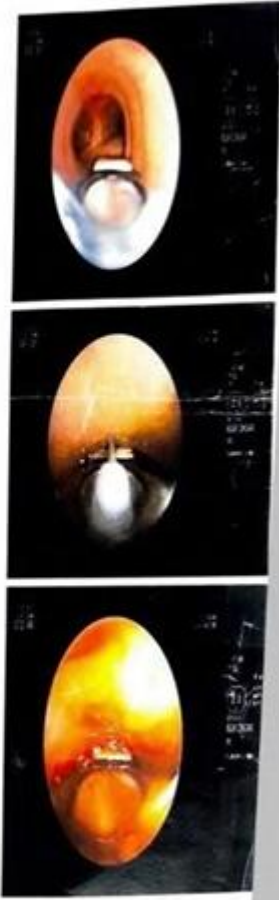


Figure 2: EBUS showing right Paratracheal lymph nodes

5. Treatment

Patient admitted with GOO - advised surgery, but patient deferred surgery. OGD guided SEMS Stent placement was done. Patient again presented with symptoms of GOO. Hence proceeded with surgery

Intra OP Findings

- Moderate ascites was present
- 10x4cm growth in antropylic region infiltrating into the head of pancreas, transverse mesocolon
- Multiple enlarged para – aortic and transverse mesocolon nodes
- No live metastasis
- No peritoneal and omental deposits
- Hence proceeded with palliative AGJ+JJ.

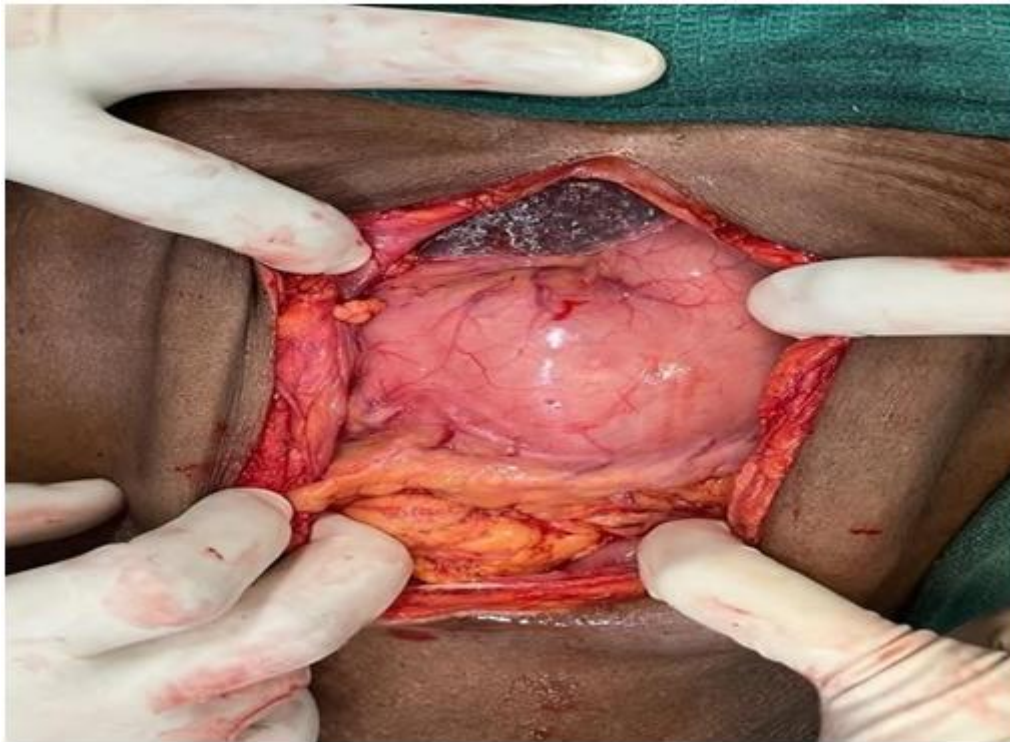


Figure 3: Intra OP Image Showing Antropyloric Growth

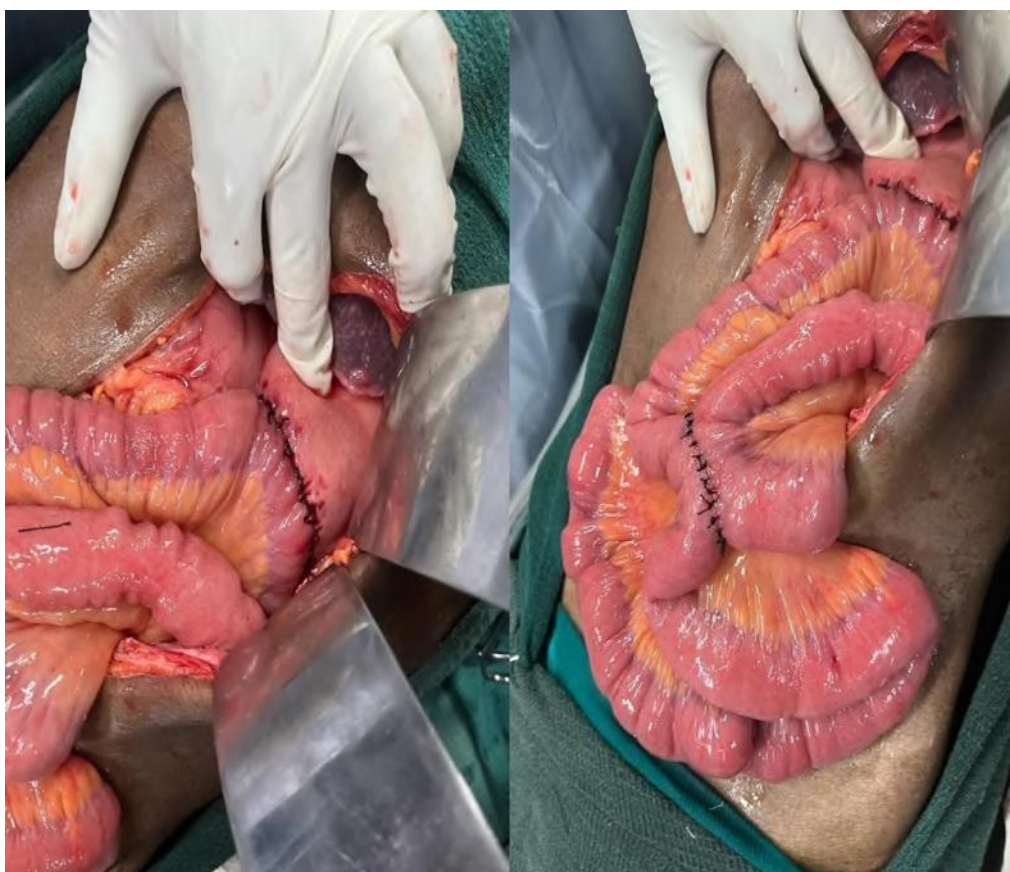


Figure 4: Intra OP image showing AGJ+JJ

- HPE from Transverse mesocolon lymph node – Case atypical granulomatous lymphadenitis – probably tuberculosis etiology
- Thoracic medicine opinion obtained
- Patient started on ATT and tolerating well
- Currently on medical oncology followup for palliative

chemotherapy.

6. Discussion

Tuberculosis of the gastro intestinal tract most frequently involves the ileocecal region [5]. Involvement of stomach is

considered to be rare and is usually secondary to pulmonary tuberculosis [2]. Primary and isolated gastric tuberculosis without evidence of lesions elsewhere is uncommon with only a few cases reported in the literature [1, 4, 6]. The reason for relative rarity is attributed to bactericidal property of gastric acid, scarcity of lymphoid tissue in gastric wall, and the intact gastric mucosa of the stomach. The possible routes of infection include direct infection of the mucosa and hematogenous spread or extension from neighboring tuberculous lesion [5].

The incidence of TB has been therefore reportedly increasing in patients with both pulmonary and non – pulmonary cancers.

The risk for TB in patients with malignancy is due to immune suppression from

- 1) The cancer itself
- 2) The chemotherapy
- 3) Local structural changes

The risk of TB reactivation reasonably increases in people with cancer.

Therefore, screening for active and latent TB should be considered.

Mycobacterial infections may escape the host's cellular response and killing resulting in chronic and persistent inflammation. Mycobacterium induce production of nitric oxide and reactive oxygen species causing DNA damage. Tuberculosis may also enhance synthesis of BCL - 2 and this could lead to increased anti apoptotic activity.

Palpable lymph nodes due to tuberculous lymphadenitis may lead to over staging in the TNM system.

Even if biopsy specimens reveal infiltration by malignant cells, material should also be sent to perform stain and culture for M. Tuberculosis

Multiple studies across the globe suggest tuberculosis in malignancy to be of greater incidence in

- Respiratory tract cancer
- Hematological malignancy
- Gastrointestinal malignancy
- Head & neck malignancy

Overall mortality rates in coexisting malignancy & tuberculosis
10.5% at 3 months
15.56% at 6 months
20.56% at 12 months

7. Conclusion

3 different types of association between malignancy and tuberculosis.

- The development of cancer on the background of a previous tuberculous infection.
- The concurrent existence of TB and malignancy in the same patient or clinical specimen.
- The diagnostic challenges arising from the multifaceted presentations of these two disorders.

Clinicians need to be aware of the varied manifestations of TB and cancer and should have a high index of suspicion for simultaneous and/or misleading presentations

Timely diagnosis and timely initiation of ATT helps in reducing the complications of the chemotherapy and deterioration of clinical condition of the patient from underlying malignancy

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