

# Endoscopic Ultrasound-guided Fine Needle Biopsy (EUS-FNB) in the diagnosis of Intra-abdominal Tuberculosis (TB).



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## INTRODUCTION

Intra-abdominal tuberculous lymphadenitis can disguise under the cloak of various malignancies, such as pancreatic cancer and lymphoma, thus making it a diagnostic challenge. Therefore, it is essential to obtain sufficient samples for tissue diagnosis. The advent of novel EUS-FNB needles have paved the way for superior tissue acquisition, obviating the need for repeat procedures and more invasive diagnostic modalities.

## METHOD

**This is a case series of 12 patients from a single centre with intra-abdominal lymphadenopathy diagnosed on CT imaging who underwent an EUS-guided biopsy between April 2020 to March 2021.**

## RESULTS

Mean age of the patients was 46.83 years old (SD 16.65), of which 7 (58%) were females. The most common presenting complaint was weight loss, 10 (83%), and the least common complaint was fever, 4 (33%). Interestingly, all patients presented with anemia (median 10.3 g/dL, range 3.3 – 11.9) and hypoalbuminemia (mean 26.67 unit, SD 5.74). In 4 patients (33.3%) biopsy was obtained from more than 1 site. Granulomas were identifiable in biopsy specimens of all patients with 2 of them being positive for GeneXpert. There were no reported complications and none of the patients required a repeat procedure in our study. Final diagnosis was based on combined clinical presentation, radiological findings and EUS FNB results.

## DISCUSSION

Abdominal TB poses a considerable diagnostic challenge owing to the lack of specific symptoms and absence of specific diagnostic test. In our study the most common presenting symptom was weight loss and the least common was fever, thus highlighting the wide spectrum of presentation of this disease. Although modalities such as CT,

hold special diagnostic value in the presence of TB related abdominal lymphadenopathy, imaging findings are not disease specific. Nodes with low-density centers and calcification, although characteristic of TB, are not pathognomonic. Therefore, acquisition of a tissue sample is critical for an accurate diagnosis, given the endemicity of TB in our region. EUS is a minimally invasive and safe technique that permits access to deep-seated lymph nodes within the abdomen. Necrotising granuloma, a pathological hallmark of TB was seen in all our subjects. GeneXpert is an automated diagnostic test for the detection of TB and rifampicin resistance. It was positive in 2 of our patients.

## CONCLUSION

EUS-FNB is a safe and minimally invasive modality for diagnosing TB in patients with intra abdominal lymphadenopathy.



**Figure 1 : EUS-FNB of a matted hilar lymph node.**

## REFERENCES

1. Puri R, Mangla R, Eloubeidi M, Vilmann P, Thandassery R, Sud R. Diagnostic yield of EUS-guided FNA and cytology in suspected tubercular intra-abdominal lymphadenopathy. *Gastrointestinal endoscopy*. 2012 May 1;75(5):1005-10.
2. Junare PR, Jain S, Rathi P, Contractor Q, Chandnani S, Kini S, Thanage R. Endoscopic ultrasound-guided-fine-needle aspiration/fine-needle biopsy in diagnosis of mediastinal lymphadenopathy–A boon. *Lung India: Official Organ of Indian Chest Society*. 2020 Jan;37(1):37.

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