www.directivepublications.org

Journal of Infectious Diseases

ISSN 2831-8064

Mini Review

Miliary Tuberculosis Is Not Uncommon.

Jayesh Trivedi[1], Virendra Kumar Goyal[2], Sohail[3], Priya Kunwar[4], Shubham Balki[5], Keyur Soni[5], Atul Gupta[5], Ayushya Pal Singh[5], Amanmeet[5], Sudeep Deswal[5].

[1]Professor Department of General Medicine Pacific Medical College & Hospital, Udaipur.
[2]Professor & Head of Department of General Medicine Pacific Medical College & Hospital, Udaipur.
[3]Assistant Professor, Department of General Medicine Pacific Medical College & Hospital, Udaipur.
[4]Senior Resident, Department of General Medicine Pacific Medical College & Hospital, Udaipur.
[5]Post Graduate Residents, Department of General Medicine Pacific Medical College & Hospital, Udaipur.

Abstract

Miliary tuberculosis (TB) is a life-threatening form of disseminated TB, which occurs when Mycobacterium tuberculosis spreads hematogenously to multiple organs, resulting in widespread infection. Miliary TB is a rare but severe manifestation of tuberculosis, and early recognition, along with appropriate treatment, is crucial for improving patient outcomes.

INTRODUCTION

Tuberculosis remains a significant global health issue, responsible for considerable morbidity and mortality. While the majority of TB cases involve pulmonary infection, miliary tuberculosis is not uncommon and is severe form of extrapulmonary tb , characterized by the hematogenous spread of Mycobacterium tuberculosis to multiple organs. The term “miliary” is derived from the particular appearance of the lesions, which appear like millet seeds on imaging studies. Miliary tuberculosis can be challenging to diagnose due to its nonspecific symptoms, and it often presents late in the course of infection, which can result in a poor prognosis if not promptly managed.

The incidence of miliary TB is highest in regions with endemic TB, particularly in sub-Saharan Africa and parts of Asia, where the burden of tuberculosis is elevated.t

The prevalence of all forms of tuberculosis in Rajasthan, India among all age groups is 432 cases per 100,000 populations.3 The tribal population comprise 8.6% of the total population of India. The estimated prevalence of tuberculosis for tribal population is 703 cases per 100,000 populations.

Immunocompromised individuals, particularly those infected with HIV, are at an increased risk of developing military TB. HIV/AIDS, malnutrition, diabetes, and other conditions that impair immune function significantly increase the likelihood of developing disseminated TB. However, miliary TB can also affect healthy individuals, particularly in the pediatric or elderly populations. This underscores the need for vigilance in diagnosing miliary TB across different patient populations, including those who may not exhibit traditional risk factors.

DISCUSSION

A 45 year old male known case of pulmonary tuberculosis since 1 month already on Anti tubercular therapy since 1 month ,came with complaints of fever on and off since 1month ,abdominal pain, vomiting on and off , easy fatigability, weight loss , shortness of breath since 1 month.

On examination

On per abdominal eaxmination pateint had mild hepatosplenomegly.

Respirtory examination revealed no significant abnormality.

The patient underwent a full panel of investigation.including complete blood count, liver function test, renal function test, ,serum electrolyte ,erthryocyte sedimantation test(esr), C-reactive protien (crp) .serum cortisol .

***Corresponding Author: Jayesh Trivedi**, Professor Department of General Medicine Pacific Medical College & Hospital, Udaipur, India,
Email: drjvtrivedi@rediffmail.com
Received: 01-Mar-2025, Manuscript No. JOID-4607 **; Editor Assigned:** 02-Mar-2025 **; Reviewed:** 27-Mar-2025, QC No. JOID-4607 **; Published:** 20-May-2025, **DOI:** 10.52338/joid.2025.4607
Citation: Jayesh Trivedi . Miliary Tuberculosis Is Not Uncommon. Journal of Infectious Diseases. 2025 May; 11(1). doi: 10.52338/joid.2025.4607.
Copyright © 2025 **Jayesh Trivedi**. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Reports indicated

hypoalbuminemia , raised crp , hyponatremia .

Patient usg abdomen was suggestive of mild hepato splenomegaly with multipe granulomas.

To investigate further patient CECT chest and abdomen was done and was suggetive of

1. liver is mildly enlarged in size (16cm) with mild fatty changes.
2. Small calcifications/granulomas are seen in segment II and IV-A of liver.
3. Spleen is enlarged in size and measures 15.3 cms
4. Diffuse miliary, non-homogenous, reticular opacities with cavities are seen scattered in both lungs. Mostly suggestive of Miliary Koch's.
5. Small enhancing lymphnodes are seen in mediastinum, larger 12 x 10mm in precarinal region.

Figure 1 and 2 showing Transverse plane of cetct chest depicting millet like appearance.



Figure 1

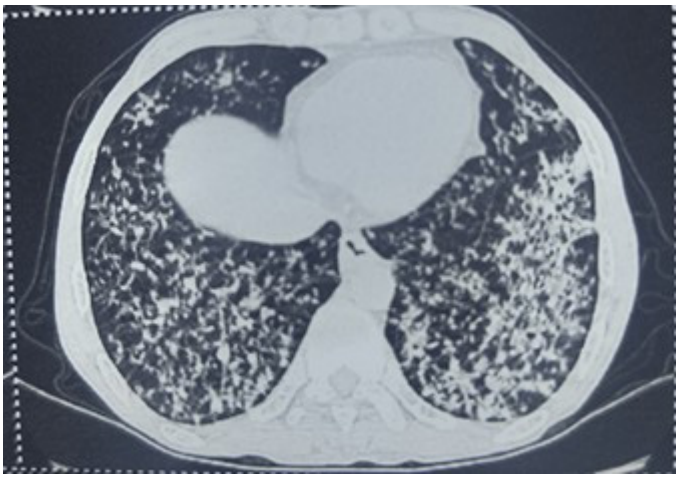


Figure 2

Figure 3,4,5 showing granulomas in the segment II and IV of liver.

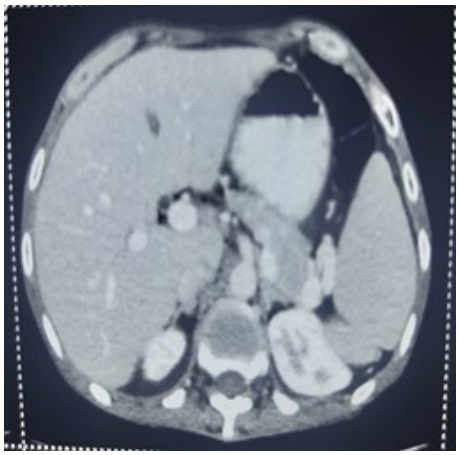


Figure 3



Figure 4



Figure 5

CONCLUSION

Miliary tuberculosis, characterized by the widespread dissemination of Mycobacterium tuberculosis, is a significant health concern in Rajasthan. Data from 2021 indicates that Rajasthan had 148,892 reported cases of tuberculosis , with extrapulmonary

tuberculosis accounting for 20% (30,156 cases) of these. Given the substantial proportion of miliary and extrapulmonary tuberculosis cases, it is imperative to enhance early detection and adherence to treatment of tuberculosis in the region to mitigate the disease's impact.

REFERENCES

1. Hawkey, P. M., & Jones, A. (2017). A brief overview of the diagnosis and management of military tuberculosis. Journal of Infectious Diseases, 216(3), 535-543.

2. Hawn, T. R., & McHugh, T. D. (2006). Military tuberculosis: A review of epidemiology, diagnosis, and treatment. The Lancet, 367(9516), 669-676.

3. Weyer, K., Dheda, K., & van Zyl-Smit, R. (2013). The role of molecular diagnostic techniques in the diagnosis of tuberculosis. Clinical Microbiology and Infection, 19(4), 303-310.

4. P.K. Anand, Harpreet Kaur, G.S. Toteja, Hitesh Tiwari, Surendra Kumar, P.K. Khatri, Rajneesh Kumar, Anil Patel,A qualitative analysis to identify the issues of tuberculosis management in tribal areas of Rajasthan,Indian Journal of tuberculosis.

5. Harrison, T. R., Kasper, D. L., Fauci, A. S., Longo, D. L., & Jameson, J. L. (2015). Harrison's Principles of Internal Medicine (19th ed.). McGraw-Hill.

6. Gandhi, N. R., Moll, A. M., & Sturm, A. W. (2006). Extensively drug-resistant tuberculosis as a cause of death in patients co-infected with tuberculosis and HIV in a South African province. Clinical Infectious Diseases, 42(1), 101-107.

7. Kaufman, S. J., & McFarland, J. (2008). Miliary tuberculosis: Pathophysiology and clinical features. Harrison's Principles of Internal Medicine, 17th edition. McGraw-Hill Education.

8. Vijay Sharma , Richa sharma. Profile of extrapulmonary tuberculosis in Western Indian state.