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Case Study

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A CASE OF CRYPTIC TUBERCULOSIS IN BONE MARROW PRESENTING AS PYREXIA OF UNKNOWN ORIGIN

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ABSTRACT

Tuberculosis is a constant problem in our country. Tuberculosis can be pulmonary and extra pulmonary. Bone marrow tuberculosis is rare and bone marrow tuberculosis with PUO is also rarer. Here we reporting a case 76 yr old male presented with PUO finally diagnosed as bone marrow tuberculosis with help of bone marrow biopsy and ZN stain.

KEYWORDS: extra pulmonary, biopsy, ZN stain.

INTRODUCTION

Pyrexia of unknown origin (PUO) is an intriguing problem in clinical medicine.[1] The main causes are infection, malignancy and autoimmune diseases etc. Extrapulmonary tuberculosis are rare among which bone marrow tuberculosis is rarer. Presentation of bone marrow tuberculosis as PUO only 0.3-0.4% cases. Bone marrow tuberculosis is rare and it sometimes present as PUO. Our case highlights the importance of tuberculosis dissemination in patients who present with extra pulmonary manifestations in order to start treatment early.

CASE STUDY

A 76 year old male patient came with complains of fever and loss of appetite since 1 month and backache for 5 days. Fever was moderate degree, intermittent, not associated with chills and relieved on taking medication. History of urinary tract infection was also there 20 days back.

He is a known case coronary artery disease and type 2 diabetes since 16 years.There was no past history of tuberculosis or contact history. No family history of tuberculosis.

On examination there was no lymphadenopathy or organomegaly but had oral candidiasis. His hematological parameters were within normal limit with

RBC-4.35millions/cmm, MCV-82fl, MCH-27.8pg, MCHC-33.9 g/L, Hb-12.1g/dl, WBC-7300/cmm, Platelet-1.5 lakhs/cmm. DLC showed neutrophil-78%, lymphocyte-18%, monocyte-4%, eosinophil and basophil-0%.Viral markers were negative. Liver enzymes were mildly raised. ESR was 72mm and C-reactive protein was 90 mg/L. Test for malaria parasite, blood culture, urine culture and Montoux test was negative. NCCT thorax normal.

Fever was not subsiding on antibiotics and bone marrow study was advised. Bone marrow aspiration revealed no definite pathology but biopsy showed epithelioid granulomas with necrosis. ZN stain for AFB was positive. Final diagnosis was made of tubercular granuloma of bone marrow. The patient improved after antitubercular treatment.

Legends for Figures

Figure 1: shows normal bone marrow aspiration.

Figure 2: shows marrow trabeculae and marrow elements.

Figure 3 /4: shows well circumscribed lesion comprising of epithelioid cells, langhans type of giant cells, lymphocytes, peripheral fibrosis and caseous necrosis forming epithelioid granuloma.

Figure 5: shows ZN stain for AFB – Red beaded rod shaped bacilli confirming Tuberculosis.

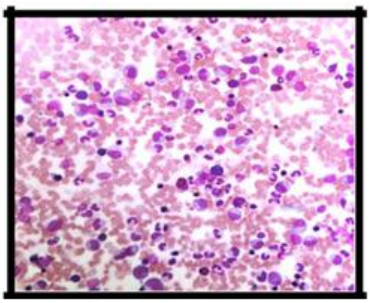

Fig. 1: BM aspiration(400X).

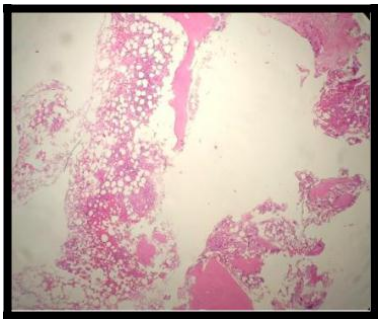

Fig. 2: BM biopsy H & E (40X).

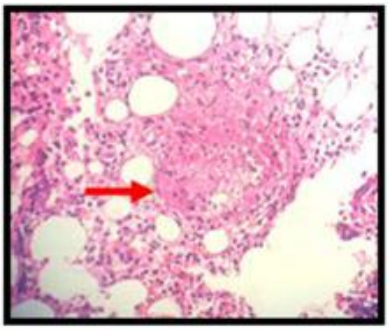

Fig. 3: H&E (400X) Granuloma.

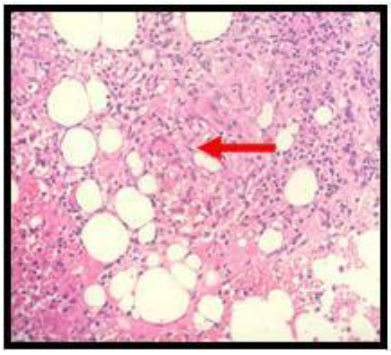

Fig. 4: H&E (400X) Granuloma.

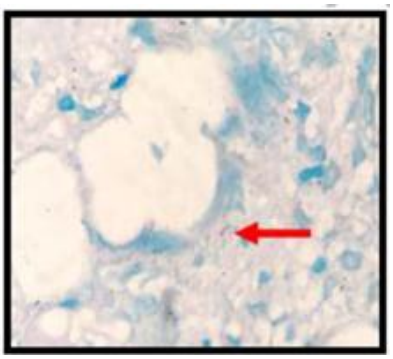

Fig. 5: ZN stain(1000x).

DISCUSSION

There has been a significant decrease in the incidence of tuberculosis due to early diagnosis and treatment.But extra pulmonary tuberculosis incidence unchanged due to delay in the recognition of the disease for uncommon presentation.[4] Bone marrow tuberculosis is rare, sometimes present as PUO with an incidence of 0.3 to 0.4%.Delayed diagnosis is a constant problem.[2] Can present with variable haematological abnormality mostly pancytopenia.[2] But in our case patient did not present with pancytopenia, the possible explanation may be early involvement of bone marrow. Many times granulomas missed by bone marrow aspiration so bone marrow biopsy is an essential diagnostic tool in bone marrow tuberculosis. In our case too we missed any granuloma in bone marrow aspiration but we got it in bone marrow biopsy.

Conflicts of Interest: The authors have no conflicts of interest.

REFERENCES

1. Dutta A, Sood R, Singh B U, Kapil A et al. Diagnostic application of conventional and newer bone marrow examination techniques in fever of unknown origin JIACM, 2013; 14(1): 23-7.
2. Alghamdi A, Awan F, Maniyar I et al. Unusual Manifestation of extrapulmonary Tuberculosis, 2013; 353798.
3. Roelandt P., Dendooven, Groef K et al. Hidden Tuberculosis revealed by BM bipsy as a cause of FUO. International Journal of Clinical and lab. Medicine, 2006.
4. Le Hô H1, Barbarot N, Desrues B. Pancytopenia in disseminated tuberculosis: Think of macrophage activation syndrome. Rev Mal Respir, 2010; 27: 257-60.