ejpmr, 2021,8(5), 577-581

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

DISSEMINATED TUBERCULOSIS IN AN IMMUNOCOMPROMISED PATIENT WITH CROSSED ECTOPIC FUSION OF KIDNEYS – A CASE REPORT

Dr. Rupak Chatterjee*[1], Dr. Sumanta Sinha[2], Dr. Tania Ray Bhadra[3], Dr. Kumkum Sarkar[4] and Dr. Netai Pramanik[5]

[1]M.B.B.S, Post Graduate Trainee, MD Tropical Medicine, School of Tropical Medicine, Kolkata.
[2]M.B.B.S., DTM&H, Post Graduate Trainee, MD Tropical Medicine, School of Tropical Medicine, Kolkata.
[3]M.B.B.S, MS, Assistant Professor, Dept. of Ophthalmology, Regional Institute of Ophthalmology, Medical College, Kolkata.
[4]M.B.B.S., MD, Assistant Professor, Dept. of Tropical Medicine, School of Tropical Medicine, Kolkata.
[5]M.B.B.S, DTM&H, MD, Associate Professor, Dept of Medicine, School of Tropical Medicine, Kolkata.

***Corresponding Author: Dr. Rupak Chatterjee**

M.B.B.S, Post Graduate Trainee, MD Tropical Medicine, School of Tropical Medicine, Kolkata.

Article Received on 08/03/2021 **Article Revised on 29/03/2021** **Article Accepted on 19/04/2021**

ABSTRACT

Among the various opportunistic infections affecting a HIV seropositive patient, Tuberculosis(TB) is the most common one with disseminated form of the disease being not a very uncommon presentation particularly in those with low CD4 T lymphocyte count. There are some organs which if affected by tuberculosis demands prompt initiation of corticosteroids along with anti-tubercular drugs, which if not timely started will lead to serious complications leading to increased morbidity and mortality. Here, we report such a case in a newly diagnosed HIV seropositive male who had sputum positive pulmonary tuberculosis, bilateral pleural effusion, axillary lymphadenopathy, abdominal TB and TB choroiditis. During radiological imaging, he was also found to have crossed ectopic fusion of kidneys, a rare congenital anomaly detected incidentally.

KEYWORDS: Disseminated Tuberculosis, HIV, crossed ectopic fusion of kidneys.

BACKGROUND

Tuberculosis(TB) is a bacterial communicable disease caused by *Mycobacterium tuberculosis*, with a propensity to affect almost all parts of human body. TB can clinically be classified as pulmonary and extrapulmonary. Disseminated TB is considered when two or more non-contiguous sites of the body are involved at the same time.[1] Among the various opportunistic infections seen in HIV patients, TB is the most common one.[2],[3] According to WHO, about 1/3rd of total world population is infected with TB, with about 15% of TB patients having HIV co-infection.[4] Risk of coinfection with TB is about 20 to 37 times higher in HIV infected than noninfected persons and almost 25% of mortality in HIv patients is due to TB.[5] low CD4 T lymphocyte count increases risk of disseminated TB in HIV patients.[1]

Crossed fused renal ectopia is a rare congenital anomaly, usually detected incidentally.[6]

Here, we report a case of a 38yrs old male, newly detected HIV seropositive who had TB involving sputum positive pulmonary tuberculosis, bilateral pleura, axillary lymph nodes, abdominal – retroperitoneal nodes and mesentery, and choroid layer of eye.He was incidentally diagnosed to have crossed ectopic fusion of kidneys also, which is indeed a rare report in literature.

CASE

A 38years old male, normotensive, non-diabetic with H/O high risk sexual behaviour and multiple intravenous drug abuser, by occupation, migrant worker, was admitted with complaint of anorexia, weight loss and low grade fever for last 4months and dull aching abdominal pain with history of loose motion for last 2months. On examination, patient had pallor, right axillary and bilateral inguinal lymphadenopathy, chest findings revealed bilateral crepts with decreased air entry basal chest. Abdominal examination revealed just palpable liver and a mass in right lumbar region.

His investigations showed- TLC-6700/mm3, with 30% lymphocytes, Hb-6.6g%, platelet count – 2lakhs/mm3. LFT and renal profile revealed mild hypoalbuminemia, hyponatremia. His ICTC was found to be reactive. HBsAg, Anti-HCV were both non-reactive. FNAC was done from his right axillary lymph node which revealed chronic granulomatous lesion suggestive of TB [fig 1& 2]and the material sent for CNAAT was positive for Mycobaterium tuberculosis. His sputum Z-N stain showed presence of acid fast bacilli in plenty [fig3] and

sputum CBNAAT was also positive. His USG W/A revealed right kidney to be of 11.2cm with mild raised cortical echogenicity and left kidney was surprisingly not visible although there was no H/O nephrectomy. USG also showed multiple hypo-echoic lesions in retroperitoneum- with impression of enlarged Retroperitoneal lymph nodes and there was bilateral mild pleural effusion also. Following both these findings, he was started on anti-tubercular drugs (ATD) in form of 4FDC(fixed dose combination) pills as per his body weight. Eye referral was done and ophthalmologists noted choroiditis – scar marks and vascular sheathing-suggestive of TB choroiditis.[fig 4] His HRCT scan chest confirmed b/l pleural effusion. [fig5]

As he had persistant hyponatremia, hypoglycaemia and hypotension, his CT Abdomen was done with focus on adrenal gland. Triphasic CT Abdomen showed crossed ectopic fusion of kidneys on right side and enlarged necrotic mesenteric and retroperitoneal nodes.[fig6 & 7] There was fusion of both kidneys on the right side of spine. No focal parenchymal lesion seen in the fused kidney. No hydronephrosis or calculi were seen. Both ureters were seen draining separately into the urinary bladder on both sides. Bilateral adrenals were unremarkable.

His CD4 was found to be 16cells/mm3. Other opportunistic infections were ruled out. Patient was initiated ATD with tapering dose of steroid – prednisolone for TB choroiditis. With these, he started improving. Patient was then discharged in hemodynamically stable afebrile condition and asked to come after 2weeks for initiation of ART.

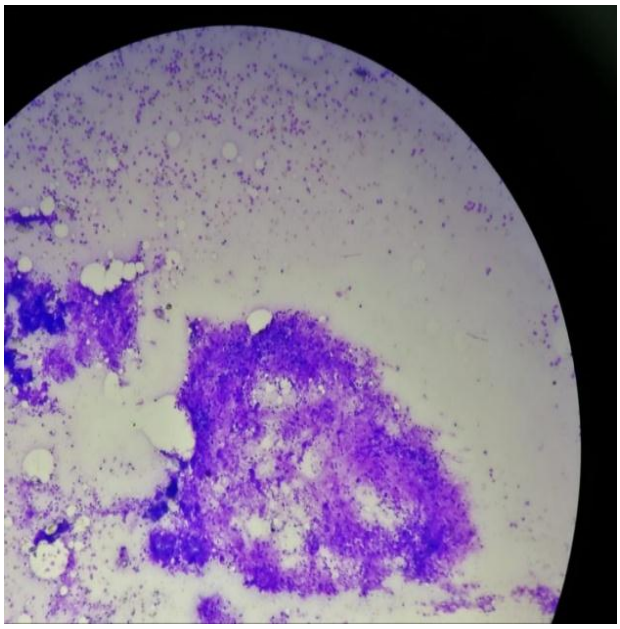

Fig. 1: FNAC lymph node cytological study H&E stain: revealing chronic granulomatous inflammation with caseous necrosis.

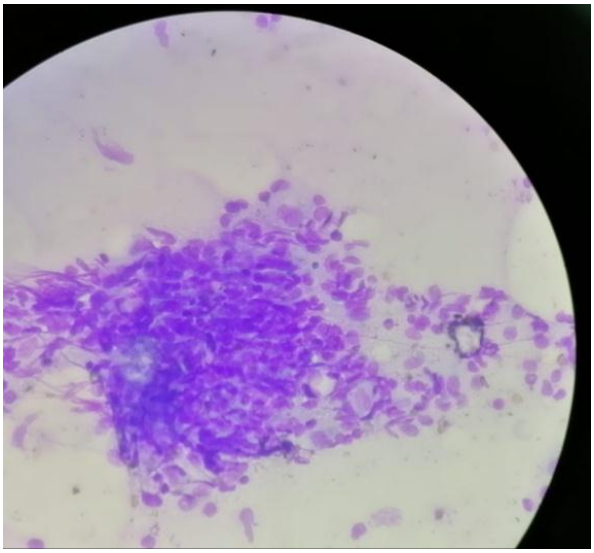

Fig2: FNAC lymph node microscopy H&E stain suggestive of chronic inflammation.

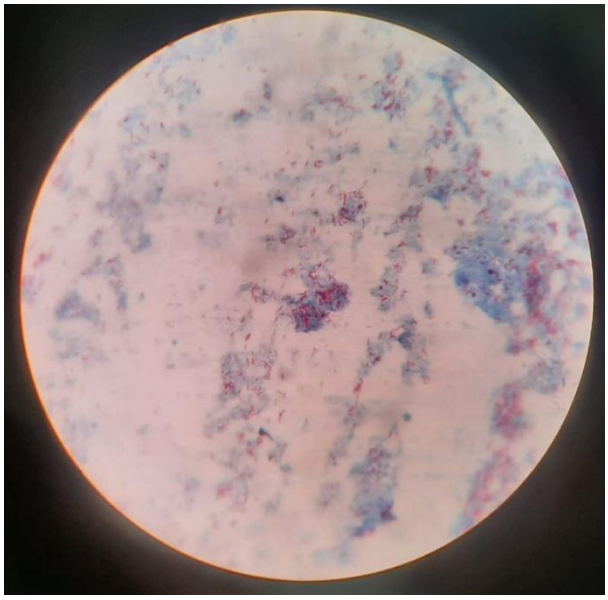

Fig 3: Sputum Z-N stain showing AFB.

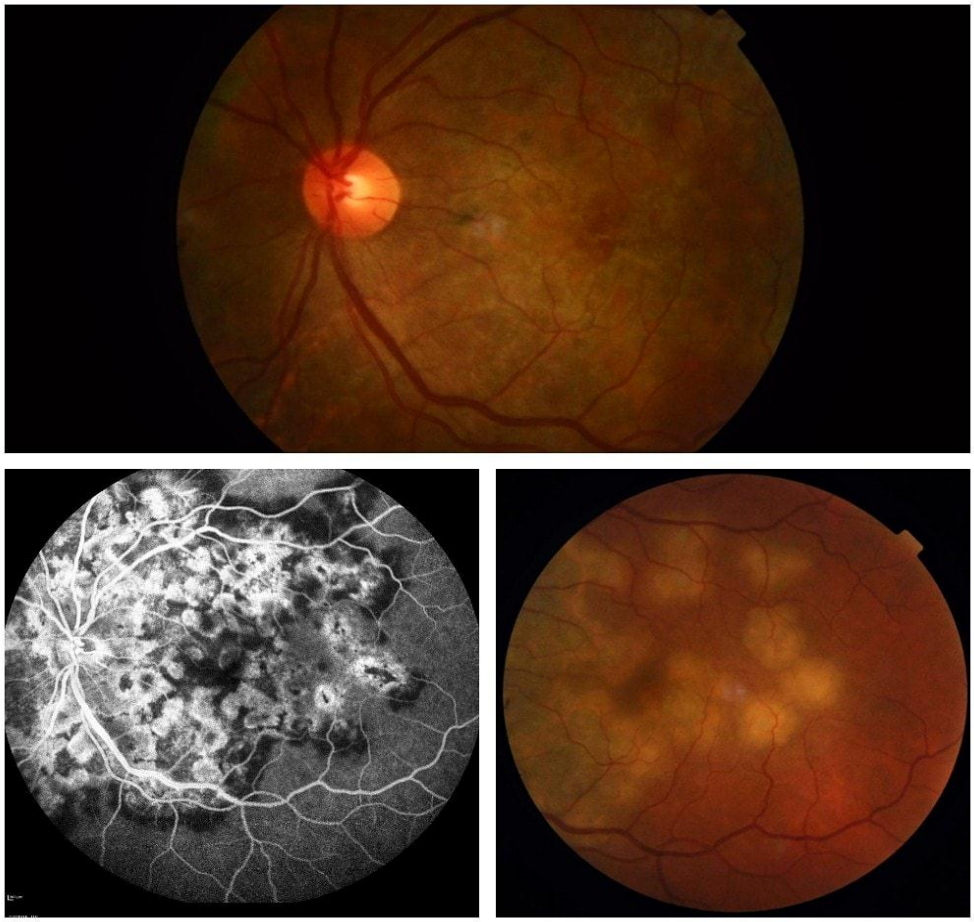

Fig. 4: Colour Fundus photography showing multiple foci of choroiditis- some inactive and some active.

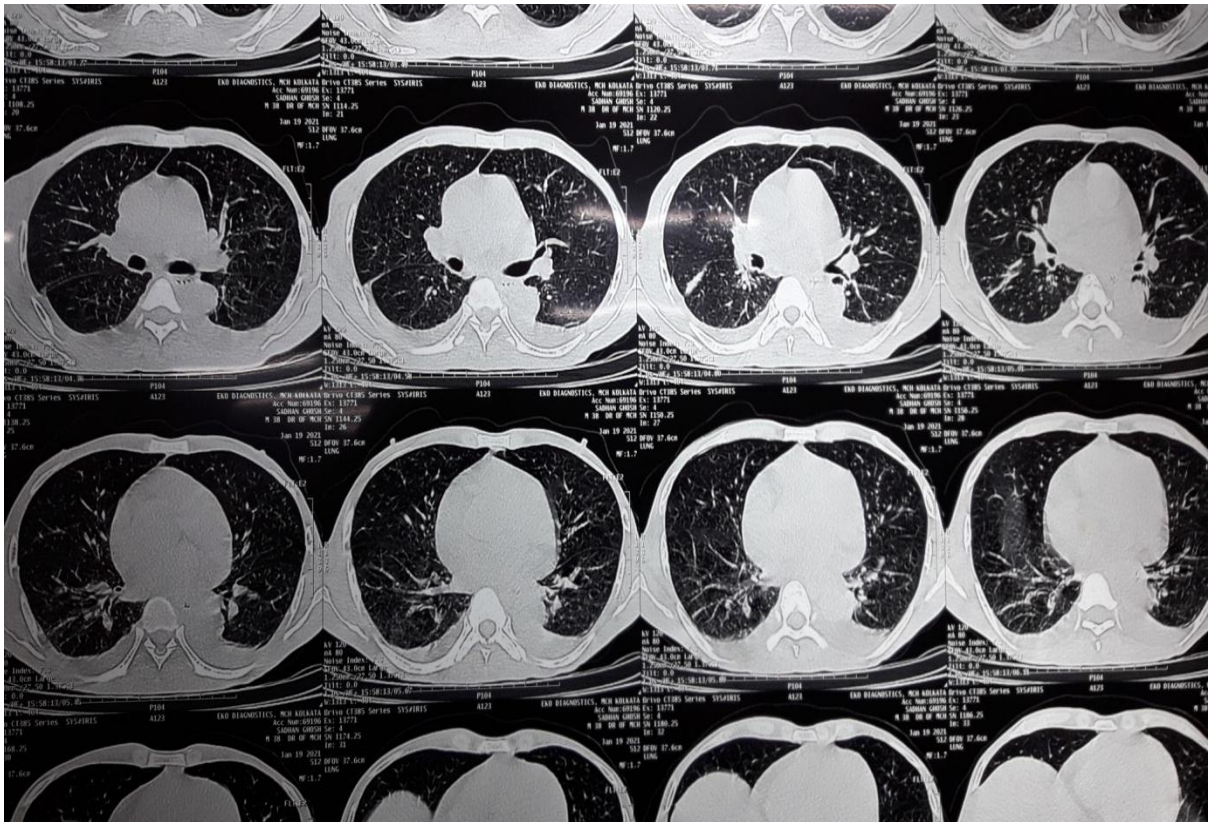

Fig. 5: HRCT thorax showing b/l pleural effusion.

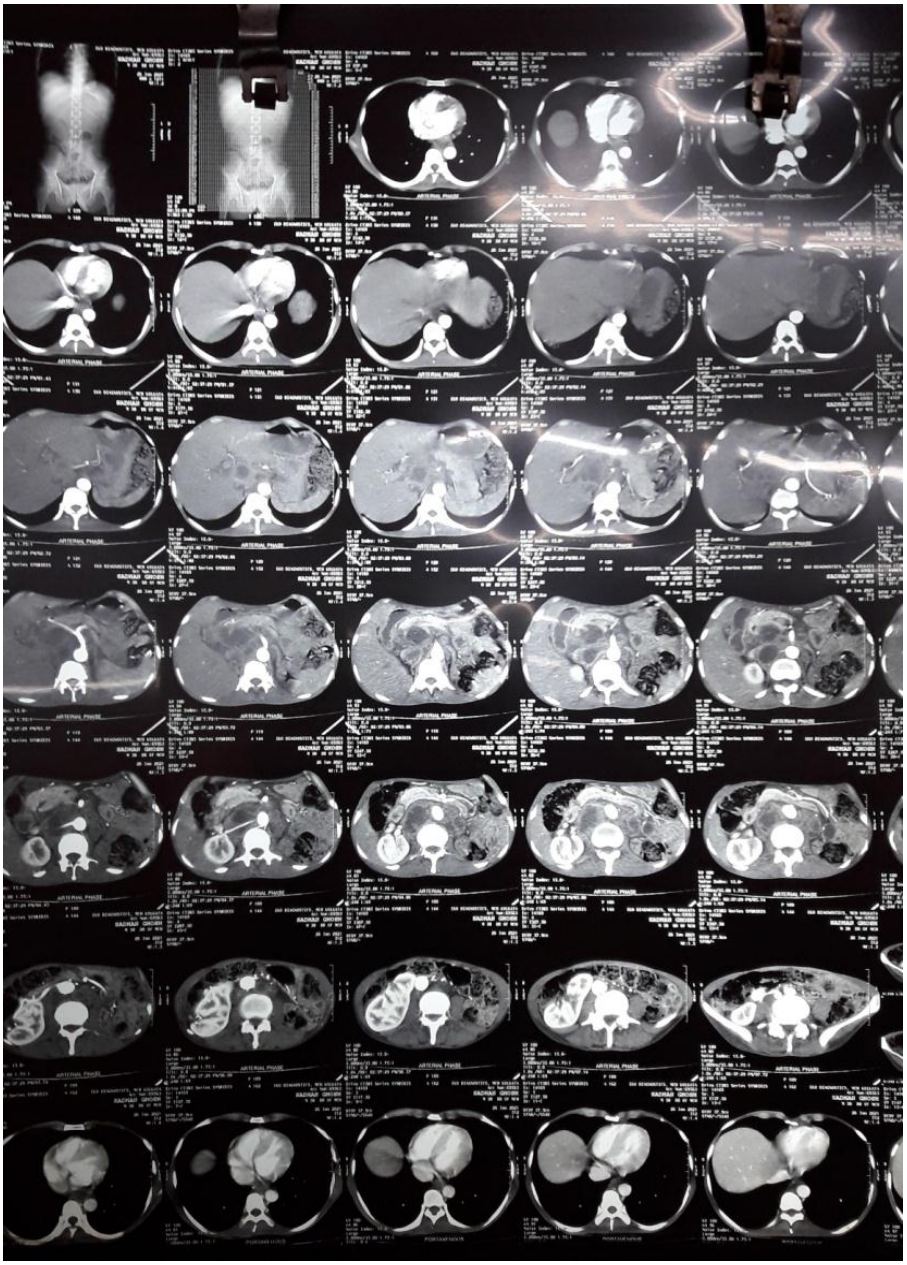

Fig. 6: CT abdomen showing multiple enlarged RPLN and ectopic fusion of kidneys on right.

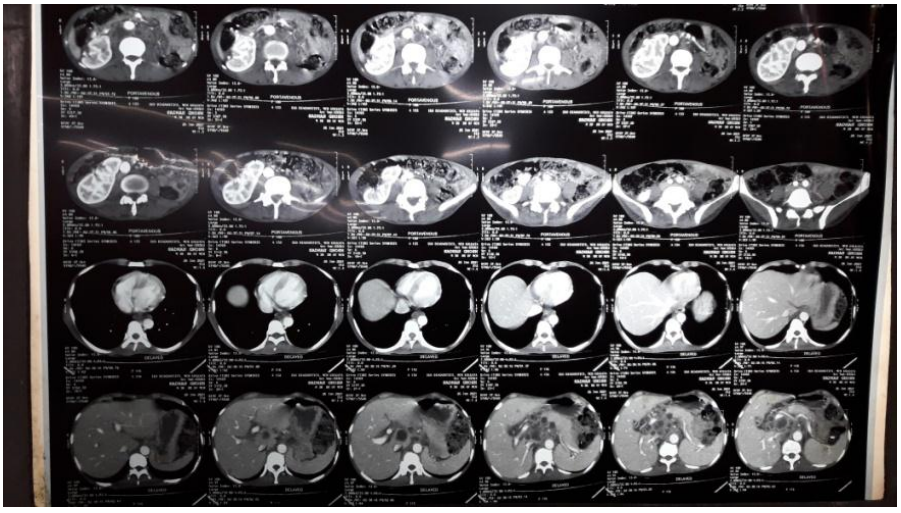

Fig. 7: CT abdomen focusing crossed ectopic fusion of kidneys on right side.

DISCUSSION

HIV patients with CD4 T lymphocyte cell count less than 50/mm3 are more predisposed to develop disseminated disease if infected with TB. Early diagnosis with prompt treatment is needed in these cases as these cases are severe with high mortality.[1] Dissemination occurs via hematogenous or lymphatic route from lungs – primary focus to other parts of the body.[7] Tuberculosis is an old disease known to affect mankind but with the growing pandemic disease HIV/AIDS, it appears to be a new threat, particularly in TB-HIV coinfection cases with low CD4. It is the most common opportunistic infection in HIV patients, thus should not be missed at any cost. Missing a TB case in HIV and initiating ART carries risk of developing immune-reconstitution inflammatory syndrome(IRIS).

Crossed fused renal ectopia is a rare congenital malformation. After horse-shoe kidney, this anomaly is the most frequent fusion abnormality of kidneys. It occurs as a result of abnormal embryogenesis with abnormal fusion of kidneys and renal ascent. This condition although mostly detected incidentally, can sometime present with complications like hydronephrosis, recurrent pyelonephritis, nephrolithiais and sometimes also very rarely as renal cell carcinoma. Treatment for crossed renal ectopia is symptomatic.[6]

REFERENCES

1. Rugina S, Dumitru IM, Resul G et al. Disseminated tuberculosis in HIV-infected patients from the regional HIV/AIDS centre Constanta, Romania. Germs, 2014; 4(1): 16-21.
2. Kamath R, Sharma V, Pattanshetty S, Hedge MB, Chandrasekaran V. HIV-TB Coinfection: Clinico-epidemiological determinants at an anti-retroviral therapy centre in southern India. Lung India, 2013; 30: 302-6.
3. Sharma SK, Mohan A, Kadhiravan T. HIV-TB coinfection: epidemiology,diagnosis & management. Indian J Med Res., 2005; 121: 550-67.
4. HIV InSite; Tuberculosis and HIV.
5. World Health Organisation (WHO)TB/HIV facts2011/2012.
6. Mudoni A, Caccetta F, Caroppo M et al. Crossed fused renal ectopia: case report and review of literature. J Ultrasound. 2017; 20(4): 333-337.
7. A.D.A.M Medical Encyclopedia. Disseminated tuberculosis. Atlanta (GA):A.D.A. M, Inc., 2012.