

Prostatic abscess as a presenting feature of paradoxical TB-IRIS

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ABSTRACT

Paradoxical tuberculosis – immune reconstitution syndrome (pTB-IRIS) is a well-recognized cause of clinical deterioration in HIV tuberculosis (HIV-TB) co-infected individuals following initiation of antiretroviral therapy (ART). Here, we present a rare presentation of pTB-IRIS which manifested as a prostatic abscess in a case of HIV positive patient. To the best of our knowledge this is the first reported case of pTB-IRIS reported in literature which manifested as a prostatic abscess. Paradoxical TB-IRIS manifesting as prostatic abscess is extremely rare and a high index of clinical suspicion is needed to diagnose and appropriately treat it.

Key words: Tuberculosis, Prostatic Abscess, HIV, Immune Reconstitution Inflammatory Syndrome

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INTRODUCTION

Paradoxical tuberculosis – immune reconstitution syndrome (pTB-IRIS) is a well-recognized cause of clinical deterioration in HIV tuberculosis (HIV-TB) co-infected individuals following initiation of antiretroviral therapy (ART).¹⁻³ Such occurrence of pTB –IRIS among HIV/TB coinfecting individuals varies from approximately 5.5% in the Indian subcontinent to 42% in Sub-Saharan Africa.^{4,5} According to a prospective study on incidence of paradoxical responses of patients on antitubercular therapy (ATT) who were later started on ART, 12 out of 33 (36%) developed pTB-IRIS symptoms.⁶ pTB-IRIS is often reported as fever, lymphadenopathy and worsening of tuberculosis (TB) like disseminated TB.^{1,7,8} Here, we would like to report a rare presentation of pTB-IRIS which manifested as a prostatic abscess in a case of HIV positive patient with TB meningitis.

CASE REPORT

A 39 year old male, known case of retroviral disease was diagnosed with TB meningitis. He was started on Rifampicin, Isoniazid, Ethambutol and Pyrazinamide

(ATT) and steroids. Two weeks later, ART (Zidovudine+Lamivudine+Effavirenz) was initiated as patient improved. He came back with complaints of high grade fever with chills and severe headache. Patient was adherent to both ART & ATT. His most recent CD4 count was 93 cells/mm³.

On examination, patient was moderately built and poorly nourished. His height was 172cm and weight was 57 kg. BMI was 19.27. He was febrile at the time of examination. As compared to his first admission, patient actually gained 5kg (50.5 kg). Other vitals were stable. Systemic examination did not reveal any significant findings.

Blood investigations revealed anemia (9.5 g%) with raised ESR (78 mm/hr). His total leucocyte count was 5800 cells/mm³ and platelet count was 526000/mm³. Liver function, renal function and serum electrolytes were normal. Peripheral blood smear for malaria parasite was negative. Immunoglobulin M test for dengue and leptospira were negative. Blood culture for pyogenic organisms and fungal culture were also negative. Urine analysis and culture did not yield any abnormalities. Chest radiograph was normal. USG abdomen showed

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borderline splenomegaly and a heterogeneous hypoechoic lesion in the prostate on right side with bulky right seminal vesicle likely to be prostatic abscess. Then, a transrectal ultrasound guided aspiration of the prostatic abscess was done. The specimen was sent for microbiology evaluation and it showed numerous acid fast bacilli on Ziehl–Neelsen (ZN) staining. Bone marrow analysis was normal. Patient was treated with a short course of steroids while continuing his prescribed ART and ATT regimens. The patient improved symptomatically and was discharged.

DISCUSSION

In 2008, International network for the study of HIV associated IRIS published a case definition for identification of pTB-IRIS.⁹ It includes 4 major criteria: i) New or enlarging lymph nodes, cold abscess or focal tissue ii) New or worsening radiological worsening of TB iii) New or worsening CNS tuberculosis iv) New or worsening serositis; and 3 minor criteria i) New or worsening constitutional symptoms ii) New or worsening respiratory symptoms iii) New or worsening abdominal pain. pTB-IRIS is diagnosed in the presence of one major or two minor criteria. Based on these criterions, a diagnosis of pTB-IRIS was then ascertained by the presence of one major criteria i.e new focal tissue involvement.⁹

Extrapulmonary TB is steadily increasing in patients with acquired immunodeficiency syndrome (AIDS). Prostate TB is much less common than renal, vesiculo-seminal and epididymal TB.¹⁰ Tuberculosis may be spread to the prostate from the kidney through the urinary tract, haematogenous spread, direct extension from adjacent foci, and lymphatic spread.¹¹

Although there was a strong clinical suspicion of pTB-IRIS, this case initially eluded the diagnosis and came across as pyrexia of unknown origin simply because the site of worsening of TB if any, was not easily recognizable. Also, the fact that most cases of pTB-IRIS occurs within 3 months of ART initiation helped us in diagnosing this particular case.^{8,10} The patient never reported any lower urinary tract symptoms. Therefore, prostatitis could not be clinically suspected and a digital rectal exam was not performed. It was only during the course of work up of pyrexia of unknown origin that the prostatic abscess was discovered. Hence, it is important to keep an open mind that the scope of clinical features for pTB-IRIS is vast and rare presentation like this may occur. To the best

of our knowledge this is the first reported case of pTB-IRIS reported in literature which manifested as a prostatic abscess.

CONCLUSION

Paradoxical TB-IRIS manifesting as prostatic abscess is extremely rare and a high index of clinical suspicion is needed to diagnose and appropriately treat it.

REFERENCES

1. Shelburne SA and Hamill RJ. The immune reconstitution inflammatory syndrome. *AIDS Rev* 2003;5:67–79.
2. French MA, Price P and Stone SF. Immune restoration disease after antiretroviral therapy. *AIDS* 2004;18:1615–1627.
3. Lawn SD, Bekker LG and Miller RF. Immune reconstitution disease associated with mycobacterial infections in HIV-infected individuals receiving antiretrovirals. *Lancet Infect Dis* 2005;5:361–373.
4. Kumarasamy N, Venkatesh KK, Vignesh R, Devaleenal B, Poongulali S, Yephthomi T, et al. Clinical Outcomes among HIV/Tuberculosis-Coinfected Patients Developing Immune Reconstitution Inflammatory Syndrome after HAART Initiation in South India. *J Int Assoc Provid AIDS Care* 2013;12(1): 28-31.
5. Van der Plas H, Meintjes G, Schutz C, Goliath R, Myer L, Baatjie D, et al. Complications of Antiretroviral Therapy Initiation in Hospitalised Patients with HIV-Associated Tuberculosis. *PLoS One* 2013; 8(2):e54145.
6. Narita M, Ashkin D, Hollender ES and Pitchenik AE. Paradoxical worsening of tuberculosis following antiretroviral therapy in patients with AIDS. *Am J Respir Crit Care Med* 1998; 158(1):157-161.
7. Michailidis C, Pozniak AL, Mandalia S, Basnayake S, Nelson MR and Gazzard BG. Clinical characteristics of IRIS syndrome in patients with HIV and tuberculosis. *Antivir Ther* 2005; 10(3):417-422.
8. Breton G, Duval X, Estellat C, Paoletti X, Bonnet D, Mvondo D, et al. Determinants of immune reconstitution inflammatory syndrome in HIV type 1-infected patients with tuberculosis after initiation of antiretroviral therapy. *Clin Infect Dis* 2004; 39(11):1709-1712.
9. Meintjes G, Lawn SD, Scano F, Maartens G, French MA, Worodria W, et al. International Network for the Study of HIV-associated IRIS. Tuberculosis-associated immune reconstitution inflammatory syndrome: case definitions for use in resource-limited settings. *Lancet Infect Dis* 2008; 8(8):516-523.
10. Gupta N, Mandal AK and Singh SK. Tuberculosis of the prostate and urethra: A review. *Indian J Urol* 2008;24(3):388-391.
11. Gebo KA. Prostatic tuberculosis in an HIV infected male. *Sex Transm Infect* 2002; 78(2):147-148.
12. Lortholary O, Fontanet A, Mémain N, Martin A, Sitbon K and Dromer F; French Cryptococcosis Study Group. Incidence and risk factors of immune reconstitution inflammatory syndrome complicating HIV-associated cryptococcosis in France. *AIDS* 2005;19(10):1043-1049.

Authors Contribution:

BA – treating physician; AS, MCH,DM, SY and BA – prepared the initial manuscript; SM, DM and BA – edited, revised and proof read the manuscript.

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