

**ORIGINAL ARTICLE:**

**CROSS SECTIONAL STUDY OF HIV REACTIVITY IN PATIENTS DIAGNOSED CLINICALLY AS TUBERCULOSIS**

**\*Dr. B.Kalaimathi, \*\*Dr. M.Mohanalakshmi**

\*MBBS.,MD.,(Pharm) , Senior Assistant Professor , Dept of Pharmacology

\*\*MBBS.,DGO.,MD.,(Pharm) , Civil Surgeon, Senior Assistant Professor , Dept of Pharmacology

**Co-Investigator:** Dr. Meenakshi, Professor & HOD, Dept of Immunology, Institute : Government Stanley Medical College & Hospital

---

**Abstract:**

**Objective:** To find out the HIV status of Tuberculosis Patients from their samples received by department of Immunology for 3 months period

**Methods:** Daily collection and assessment on the reports of blood samples of patients clinically diagnosed as Tuberculosis for HIV reactivity status for a three months period.

**Results:** RNTCP samples alone received for the three months: 902 which is 14% of the total three months samples. RNTCP positivity samples alone for the three months: 10 which is 1.1% of the samples received.

---

**Introduction**

Tuberculosis (TB) and human immunodeficiency virus (HIV) disease are the 2 leading causes of infectious disease-associated mortality worldwide.<sup>1</sup> TB and HIV disease have been inextricably bound together from the early years of the HIV/AIDS epidemic.<sup>2</sup> Their dangerous synergy affects all aspects of each disease, from pathogenesis and the epidemiologic profile to clinical presentation, treatment, and prevention- to larger issues of social, economic, and political consequences.<sup>3</sup> The harmful interaction of TB and HIV/AIDS has added greatly to the suffering and loss of life caused by each pandemic.<sup>4</sup> Together, the diseases expose underlying weaknesses in public health, medical, and social systems, as well as disparities in resources and human rights. The prevalence of HIV infection among individuals with newly diagnosed TB is alarmingly rising.<sup>5</sup> The problems in treating these patients are when to initiate antiretroviral therapy for

this coinfection, on drug-drug interactions, additive toxicities, and immune reconstitution inflammatory syndrome, each of which may complicate the concomitant treatment of both diseases.

So this three months cross sectional study at GSMCH was undertaken to throw light into the present scenario of this co-infection for the first quarter of 2016.

**Aim**

To find out the HIV status of Tuberculosis Patients from their samples received by department of Immunology for 3 months period.

**Methods**

This cross sectional study was done from January 2016 to march 2016.

The data was collected from ICTC (Integrated Testing & Counselling Centre) at Stanley OPD. ELISA testing & reporting done by department of immunology GSMC&H.

Total samples including RNTCP received for the months January, February, March were 1989, 2197, 2248 respectively & amounting to a total of 6434. RNTCP samples alone received for the months of January, February, March were 293, 303, 306 respectively & amounting to a total of 902.

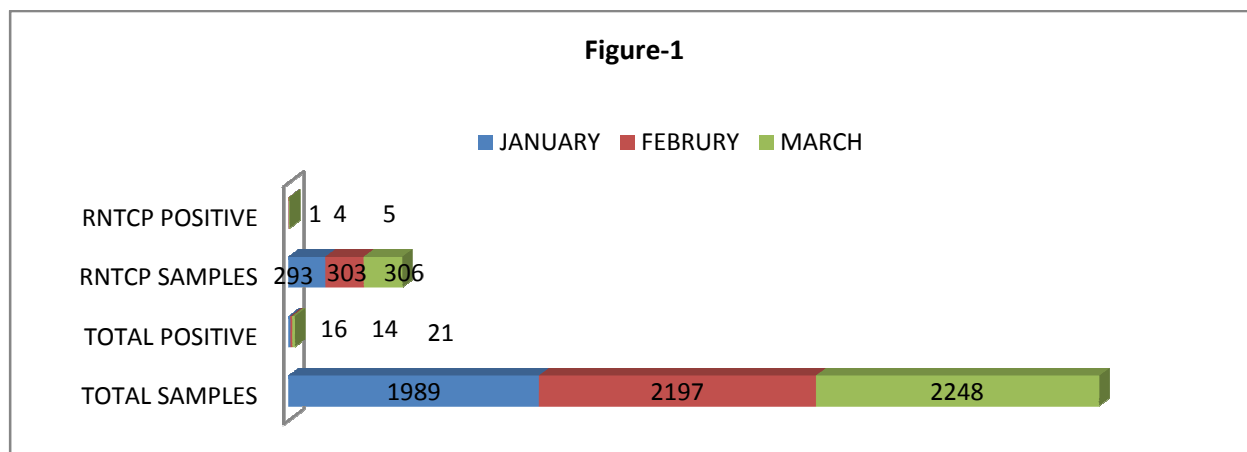
Total no. of positive samples (including RNTCP) reported for the months January, February, March were 16, 14, 21 respectively & amounting to a total of 51. Out of the total samples, RNTCP samples reported positive for the months of January, February, March were 1, 4, 5 respectively & amounting to a total of 10.

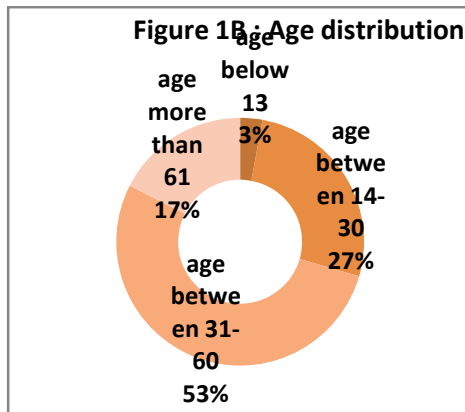
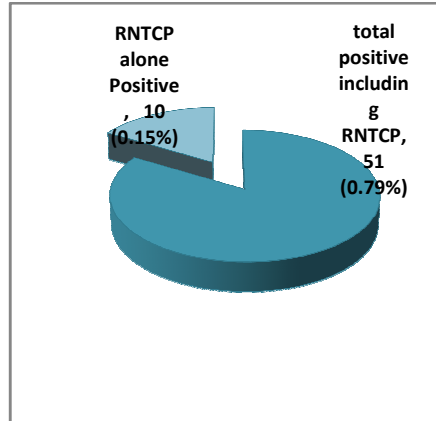
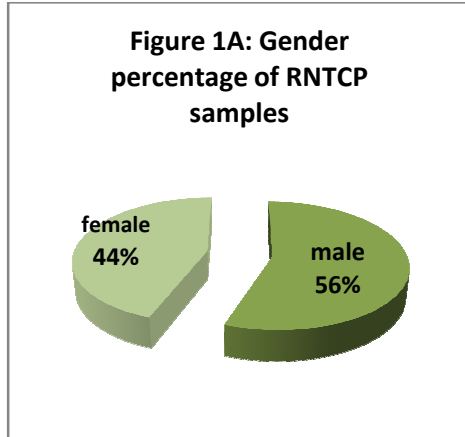
**Table-1**

Month-2016	TOTAL SAMPLES	TOTAL POSITIVE	RNTCP SAMPLES	RNTCP POSITIVE
JANUARY	1989	16	293	1
FEBRUARY	2197	14	303	4
MARCH	2248	21	306	5
Total	6434	51	902	10
Percentage		0.79%		0.15%

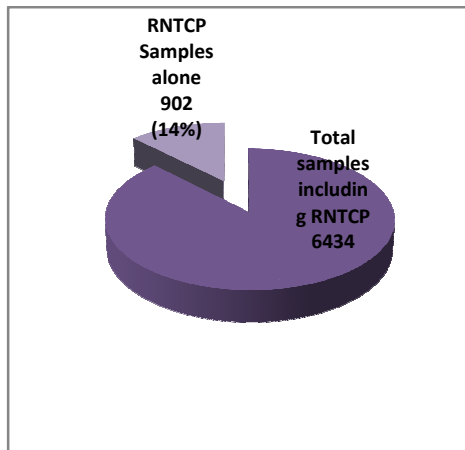
**Table 2:** Samples received and Reactivity Status

Total samples including RNTCP	6434	total positive	51 (0.79%)
Tot.RNTCP Samples	902	RNTCP alone Positive	10 (0.15%)





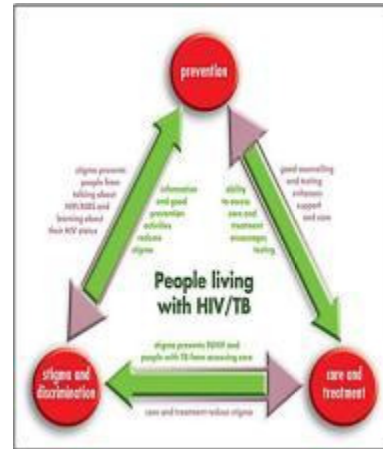
**Fig 2 A- Total samples & RNTCP samples alone & respective positivity from 1.1.2016 to 31.3.2016**



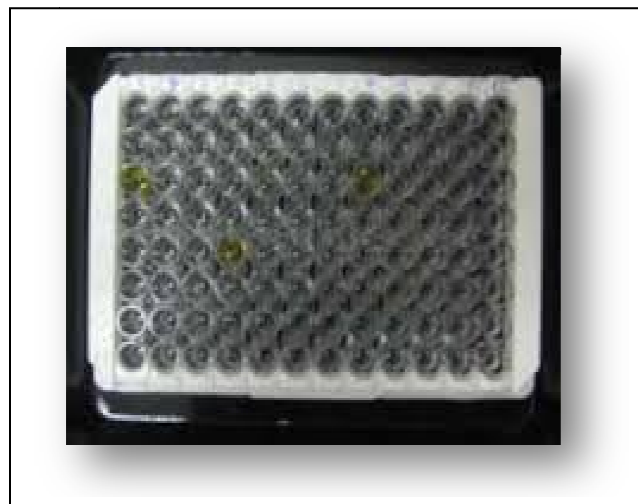
<sup>6</sup>Figure-3



<sup>7</sup> Figure-4



**Figure-5 ELISA wells showing positivity**



**References:**

1. Indian Journal of Medical Research 121, April 2005, pp 550-567 . HIV-TB co-infection: Epidemiology, diagnosis & management .S.K. Sharma, Alladi Mohan\* & Tamilarasu Kadhiraivan
2. Tuberculosis and HIV Coinfection: Current State of Knowledge and Research Priorities. Gerald Friedland<sup>1</sup>, Gavin J Churchyard<sup>4,5,6</sup> and Edward Nardell<sup>2,3</sup>
3. World Health Organization (WHO). WHO report 2006. Geneva: WHO; 2006. Global tuberculosis control surveillance, planning, financing. WHO/HTM/TB/2006.362..Joint United Nations Programme on HIV/AIDS (UNAIDS). Report on the global AIDS epidemic 2006. UNAIDS/05.19E. 4. Corbett EL, Marston B, Churchyard GJ, De Cock KM

4. Tuberculosis in sub-Saharan Africa: opportunities, challenges, and change in the era of antiretroviral treatment. Lancet 2006;367:926-37. Gandhi NR, Moll A, Sturm AW, et al
5. Extensively drug-resistant tuberculosis as a cause of death in patients co-infected with tuberculosis and HIV in a rural area of South Africa. Lancet 2006;368:1575-80.
6. World Health Organization (WHO); Stop TB Department and HIV/AIDS Department, WHO, editors. HIV/AIDS. Geneva: WHO; 2004. Interim policy on collaborative TB/HIV activities. Nunn P, Reid A, De Cock KM
7. Tuberculosis and HIV infection: the global setting. J Infect Dis 2007;196(Suppl 1):S5-14. (in this supplement). Perkins MD, Cunningham J