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Criss-cross prevalence of Pulmonary Tuberculosis (PTB) in Tangardih Dist.,Gumla

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INTRODUCTION

On close examination of Pulmonary Tuberculosis (PTB) history during 2010 – 14 in the small village of Tangardih, Block-Dumri, District- Gumla, lives a young man Mr. Shankar Bhagat 52 year, a Graduate social worker of an NGO Vikas Bharti, Bishunpur. To earn his livelihood, he also works as a farmer on his own plot of 75 dismal. His wife Pushpa Devi works as a Teacher in Sarswati Shishu Mandir, Dumri and earns Rs. 2000/month for a son Anup Bhagat age-17 and two daughters Anupama -15 Year and Durgawati – 12 year.

MATERIALS & METHODS : CASE HISTORY

Enthusiastic Shankar Bhagat visited rural villages several times for NGO works and stay anywhere in night with drinks of alcohol (Daru, Wine, Hadiya) and smokes Bidi, Cigarette etc since last 10 years. In April 2010, Suddenly he suffer from a persistent cough, fever, weight loss, hemoptasis occurs in last month and he discussed all symptoms with his friend Mr. Sudhanshu Mishra, STS of Raidih TU and he counseled him for diagnosis of sputum. By the suggestive manner he came in DMC Dumri for sputum test, his diagnosis of sputum for AFB positive (1+), blood report shows HIV- Negative, ESR- 108 mm/ hr, Hemoglobin – 10.7 gm/dl, TLC increased, DLC-Lymphosytosis. On the basis of diagnostic results doctor suggest starting DOTS under category- I, and he starts to take DOTS.

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An occurrence accepted by Mr. Shankar Bhagat during the course of DOTS, he ignore the advisory precaution and use alcohol with smoke sometimes according his habits and also ignore to follow-up of sputum diagnosis in DMC but taken regular medicine. At the end of October 2010 ends his treatment, feeling well and as usual starts his regular life style in his NGO.

Unfortunately, he came in DMC Dumri after a long time on 05/04/2013 with the persistent symptoms of TB and diagnosed his sputum for AFB as positive (3+) and start DOTS under category – II. Now Mr. Narendra Kumar, Lab Technician, DMC Dumri conducted an initial interview with Shankar Bhagat and inquired about close contacts in his home environment, at work and his social life for MDR suspects. All the close contacts diagnosed whose sputum for AFB was negative. After counseling Shankar being understand his previous ignorance of protocols but now he is very sincere about TB and don't take alcohol & smoke, he take continue DOTS therapy with follow-up of sputum. In November 2013, his Cat-II course ends, last diagnosis of sputum was negative, Although he is cured from tuberculosis.

On 04/02/2012 Anupama (Shankar's daughter) came in DMC, Dumri with sputum sample and diagnosed positive (3+), to initiated treatment of DOTS under category – I, TB No. 27/14. After one month March 2014 Anup Shankar's son) also diagnosed sputum for AFB positive (5AFB) and starts cat- I, TB No. 58/14. Mr. Shankar had a confident and believe on DOTS therapy so during treatment of his son and daughter he self advised him to keep full precaution with regular medicine. By the

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result after full course of cat- I both are cured from tuberculosis, his family feeling well, healthy and continue the regular life style but without alcohol and smokes.

Now a day's Mr. Shankar Bhagat giving a message to his villager's and NGO workers "DO HAFTO SE JAYDA KHASI TB HO SAKTI HE" he care very well to his society from tuberculosis and gives own example as a cured TB patient. His villager's Mr. Birendra Tirkey TB No. 116/14 and Rameshwar Bhagat, TB No. 180/14 being treated under category- I by his effective message and assessment.

REFRENCES

- 1. Ahmed N, Alam M, Majeed A et al (2003). Genome sequences based comparative analysis of florescent amplified fragment length polymorphism (AFLP) of tubercle bacilli from seals provides molecular evidence for new species with in *M. tuberculosis* complex. *Infect Genet Evol*; 2: 193-199.
- 2. Ali A, Hasan Z, Tanveer M et al (2007). Characterization of *Mycobacterium tuberculosis* Central Asian Strainl using mycobacterial interspersed repetitive unit genotyping. *BMC Microbiol*; 7:1471-2180.
- **3.** American Thoracic Society 2000: Targeted tuberculin testing and treatment of latent tuberculosis infection. *MMWR Recomm Rep*; 49: 1 51.
- 4. Anathnarayana R and Pannickar J (2005). Typical mycobacteria In: The text book of microbiology, 7th ed. Orient Longman publication.160 Annasalai Chennai. pp 351-365.
- Anathnarayana R and Pannickar J (2001). Typical mycobacteria In: The text book of microbiology, 5th ed. Orient Longman publication.160 Annasalai Chennai. pp 325-347.
- 6. Barreto AMW, Areuju JVM, Medeiros PFM et al (2003). Evaluation of indirect susceptibility testing of *Mycobacterium tuberculosis* to the first and second line alternate drug by the newer MB/BACT system.*Mem Inst Oswlado Cruz*: 40; 827-830.
- 7. Banu S, Gordon SV, Palmer S et al (2004). Genotypic analysis of Mycobacterium tuberculosis in Bangladesh and prevalence of the Beijing strain. *J Clin Microbiol*, 42:674-682.
- 8. Blackwood KS, Wolfe JN, Kabani AM (2004). Application of mycobacterial interspersed repetitive unit typing to Manitoba tuberculosis cases: can restriction

fragment length polymorphism be forgotten? *J Clin Microbiol*, 42:5001-5006.

- **9.** Camus JC, Melinda JP, Claudine M et al (2002). Reannotation of the genome sequence of *Mycobacterium tuberculosis* H37Rv. *Microbiology*; 148: 2967 - 2973.
- 10. Chauhan A, Chauhan DS, Parashar D et al (2004). DNA fingerprinting of *Mycobacterium tuberculosis* isolates from Agra region by IS6110 probe. Indian J Med Microbiol; 22: 238-240.
- 11. Chauhan DS, Sharma VD, Parashar D et al (2007). Molecular typing of *Mycobacterium tuberculosis* strains isolates from different part of India based on IS6110 element polymorphism using RFLP analysis. *Indian J Med Res*; 125: 577-581.
- 12. Clark-Curtiss JE and Haydel SE (2003). Molecular genetics of *Mycobacterium tuberculosis* pathogenesis. *Annu Rev Microbiol*; 57: 517 549.
- 13. Cowan Ls. Mosher L, Diem L et al (2002). Variable number tandem repeat typing of Mycobacterium tuberculosis isolates with low copy number of IS6110 by using mycobacterial interspersed repetitive units. J Clin Microboil; 40:1592-1602.
- 14. Davis PDO, Yew WW, Ganguly D et al (2006). The epidemiological association and pathogenesis of tuberculosis in HIV patients. *Trop Med*; 18:291-298.
- 15. Filliol I, Driscoll JR, van Soolingen D et al (2003). A snapshot of moving and expanding clones of *Mycobacterium tuberculosis* and their global distribution assessed by spoligotyping in an international study. J Clin Microbiol; 41:1963–70.
- 16. Frieden TR, Sterling TR, Munsiff SS et al (2003). Tuberculosis. Lancet; 362:887-899.
- 17. Gutierrez MC, Ahmed N, Willary E et al (2006). Predominance of ancestral lineages of *Mycobacterium tuberculosis* in India. *Emerg Infect Dis;* 12:1367-1374.
- **18.** Hasan Z, Tanveer M, Kanji A et al (2006). Spoligotyping of *Mycobacterium tuberculosis* isolates from Pakistan reveals predominance of Central Asian Strain 1 and Beijing isolates. *J Clin Microbiol*; 44:1763–1768.
- **19.** Heifets L and Sanchez T (2000). New agar medium for testing susceptibility of *Mycobacterium tuberculosis* to pyrazinamide. *J Clin Microbiol*; 38:1498-1501.
- 20. Jones C, Kortenkamp A (2000). RAPD library fingerprinting of bacterial and human DNA:applications in mutation detection.*Teratog Carcinog Mutagen*; 20:49-63.

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