



TREATMENT OUTCOMES OF TUBERCULOSIS AT TB/DOTS UNIT OF TERTIARY CARE CENTRE

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ABSTRACT

Background: Countrywide revised national tuberculosis control programmes, is among mega ventures, needing feedback on practical success at the peripheral level. **Objective:** Treatment outcome profile at medical college bases DOTs centre with simultaneous consideration of epidemiological factors was attempted to be appraised. **Method:** A retrospective investigation of records of 73 tuberculosis patients without HIV coinfection, managed at TB/DOTS clinic in a medical college in central India is reported. The treatment outcome in patients is analyzed with reference to demographic characteristics and disease profile in patients. **Results:** on-HIV tuberculosis appears to be satisfactorily addressed at TB/DOTS care. Male gender was found to associate negative trait and relatively poor outcome than the female patients. Other studied parameters did not exhibit influence on treatment success, whatsoever. **Conclusion:** Findings emphasize the primacy of perspectives left out consideration in the study. Studies on antitubercular therapy outcomes in HIV coinfecting patients, as well as patients not well tolerating the therapy may be warranted, along with better support for advanced laboratory investigation in problem cases

Keywords: Tuberculosis, DOTS clinic, Treatment outcomes study.

INTRODUCTION

Since the launch of DOTS strategy and its successor STOP TB strategy, the number of tuberculosis cases treated and lives saved have been estimated in many crores [1]. Foremost challenge in TB treatment is nonadherence to treatment, treatment defaults and the emergence of resistance to drugs or the multidrug-resistant(MDR)TB and dread of XDR-TB. Tuberculosis is a major cause of death despite the availability of treatment [2]. Monitoring of treatment outcomes in tuberculosis and understanding instances of treatment failure are important to the success of programmes envisaging tuberculosis control[3]. In the present retrospective study outcomes of tuberculosis treatment and factors influencing the success of DOTS strategy have been examined.

PATIENTS AND METHOD

It is a retrospective investigation of records of TB patients managed at TB/DOTS clinic of medical college hospital in Indore, central India. The patients referred from college departments, peripheral Govt. and non-Govt. health care outlets attend the clinic. Cases seeking care during year July 2012 to June 2013 were considered in the analysis. Properly recorded information was available for 73 cases without HIV infection and hence treatment. Collected information included demographic characteristics, clinical type of disease, baseline sputum smear result for acid-fast bacilli, treatment category, and outcome of antitubercular treatment.

WHO definitions of outcome [4], were adopted. Thus, cure/success refers to smear conversion from positive to negative

in patient completing 6 to 8-month chemotherapy from 5th month and in subsequent visits. In cases where requisite last sputum smear results are not available may be called just treatment completed. Patients that show sputum smear positive despite therapy are cases of treatment failure. Those patients who interrupt treatment for continuous two months are treatment defaulters. Patients instituted antitubercular therapy taking transfer for continuing therapy at other TB/DOTS centre, and further information on his response is unavailable, is transferred out the case.

Patient may be new case or a relapse case(once cured on completing treatment but again turning sputum positive),treatment failure(patient on therapy remaining or becoming sputum positive at 5 months of continued treatment),return after default(completed at least one month of primary or category I treatment then interrupted for successive two or more months and returns sputum positive for treatment).Transfer in are cases that join the clinic after starting treatment at other TB/DOTS clinic.The Others type refers to cases that initially took treatment at private outlets without treatment authentication and then register with TB/DOTS clinic.

Treatment category I would refer to new cases put on primary line drugs on 6 to 8-month regimens,viz.2RHZE/4RH(initial rifampicin, isoniazid, pyrazinamide, and ethambutol. then 4 months of rifampicin and isoniazid) or 2RHZE/6EH(the maintenance ethambutol isoniazid regimen extended to 6 months).Category II would refer to retreatment cases 2SRHZE/1RHZE/5RHE regimen S stands for streptomycin(5,6).

OBSERVATIONS AND RESULT

Table 1: Profile and treatment outcome summary of 73 cases of tuberculosis.

Profile Parameters	n	%	Treatment outcome indicators and number of cases				
			Cured	Default	Failure	Transferred	Dead
Age group							
Under 20	21	29	16	2	0	1	2
20-29	15	20.5	12	2	0	0	1
30-39	15	20.5	10	1	1	2	1
40-49	16	22	11	1	1	2	1
50 and above	6	8	3	2	0	0	1
Gender							
Male	43	59	31	6	0	2	4
Female	30	41	21	2	2	3	2
TB Site							

Pulmonary	64	88	46	8	1	4	5
Extra pulmonary	9	12	6	0	1	1	1
Patient Type							
New	61	83.53	43	8	1	5	4
Relapse	2	3	0	0	0	0	2
Failure	0	0	-	-	-	-	-
Return after default	1	1.5	0	0	1	0	0
Others	9	12	9	0	0	0	0
Baseline Sputum Result							
Smear +ve	38	52	28	4	2	0	4
Smear -ve	29	40	10	3	0	5	2
Not Sp. Producing	6	8	5	1	0	0	0
Treatment Category							
Category I	61	86	46	6	1	4	4
Category II	12	14	6	2	1	1	2

The overall treatment outcome can be summarized as cured 52 cases (71%), failure 2 cases (3%), defaults in 8 cases (11%), transferred out 5 cases (7%) and death in 6 cases (8%).

Younger below 20 year age group has a maximum share (29%) of tuberculosis prevalence. Males suffer more than female in 3:2 ratio. Pulmonary tuberculosis is the most prevalent form in 88% of cases. And 83% of all cases are new. Little over half (52%) the cases are sputum smear positive for AFB. Treatment failure one each for category I and category II regimens occurred in sputum positive cases only. The various demographic and disease-related variables referred for influence on treatment outcome have not revealed significant influence. Males who suffer more also had higher default rate and deaths. Defaults exclusively occurred in pulmonary tuberculosis and not in extrapulmonary disease.

DISCUSSION

The overall cure rate of 71% is apparently good and there is 8% mortality which is not much given the trait of tuberculosis. It is, however, to be emphasized that only HIV negative cases are considered in the study. HIV coinfection with tuberculosis is the real challenge of current times (7). The 3% treatment failures and 8% mortality does not have supportive information regarding the possibility of MDR-TB in these cases. The investigation has only limited relevance for uncomplicated tuberculosis in the community which currently constitutes most cases. Lack of influence of studied demographic and disease may help to not be concerned much on these, and at the same time focus is mandated upon determinants not studied. HIV coinfection and drug-resistant disease are important. Issues of tolerability of therapeutic agents in mostly undernourished TB patients are appealing to explore

with regard to the influence on treatment outcome, especially amid socioeconomically constraints for the patients in our society at large.

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