



Original Article:

DOTS Compliance by Tuberculosis Patients in District Raipur (Chhattisgarh)

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Abstract:

Background: Compliance to therapy is one of the important factors that affect the outcome. Non-compliance to self administered multi drug tuberculosis treatment regimens is an important cause of failure of initial therapy and relapse as well as acquired drug resistance, requiring more prolonged and expensive therapy. **Objective:** To know the compliance of DOTS therapy in TB patients in District Raipur and to find out the reasons of non-compliance of DOTS therapy among the patients. **Study Design:** Cross sectional observational community based study. **Study Setting:** Microscopic Centers in District Raipur. **Participants:** 695 patients of Tuberculosis. **Result:** Study revealed that 65.93% patients had complied with the DOTS therapy and 33.38% were non compliant. **Conclusion:** Most of the reasons of non-Compliance can be averted by proper counseling of target group. Hence to achieve the goal of RNTCP, proper counseling of target group must be given top priority.

Key Words: Counseling; DOTS; Non compliance

Introduction:

Compliance to therapy plays an important role in the outcome of the therapy. Compliance is defined as the extent to which the patient's behavior coincides with medical advice. Non-compliance to self administered multi drug tuberculosis treatment regimens is common and is the most important cause of failure of initial therapy and relapse. Non-compliance may also result in acquired drug resistance, requiring more prolonged and expensive therapy that is less likely to be successful than treatment of drug susceptible tuberculosis.(1)

Directly observed treatment short course (DOTS) is a comprehensive strategy for TB control, based largely on Indian research and it is now recognized world wide. DOTS is the only strategy which has proved to be effective in controlling TB on mass scale. DOTS ensures that patients take the medicines regularly as per directions. The Revised National Tuberculosis Control Programme (RNTCP), based on DOTS, was started in Raipur on 15th August, 2002. This study was undertaken to find out the extent of compliance of DOTS therapy and to suggest suitable measures if need arises.

Materials and Methods:

The present study was a cross sectional observational community based study, undertaken in 6 treatment units (TUs) of

15 Microscopic Centers (MC) of Raipur district (two each - one at MC headquarters and one at periphery in Dharsiwa, Bhatapara, Baloda bazaar, Rajim and Gariaband and one each at District Tuberculosis Centre, MC run by an NGO in Sonadih, Medical College Hospital, Poly Clinic in Puranibasti, and District Hospital, Raipur.

A team led by the first author visited the homes of all registered patients in the above mentioned TUs and collected the data on predesigned and pretested proformas between May and October, 2006. Patients missing drugs for more than 2 consecutive weeks were taken as non compliant. The data thus collected were checked for their completeness and correctness and then analyzed.

Observations and Discussion:

On analysis of the collected data (Table 1) reveals that 34.57% patients were from District TB Centre, Raipur, which is obvious because it is the district headquarters centre and more people attend with expectations of extra facilities in comparison to periphery, followed by BalodaBazar (15.13%), Dharsiwa (14.38%), Rajim(12.94%), Gariaband (12.23%) and Bhatapara (9.35%). Table 2 indicates that 463 (65.93%) in comparison to 232 (33.38%) patients complied as per DOTS, similar to the finding of Mehrotra et al (67.0%)(2), Santha T et al (72%)(3) and Bhat S et al (76.89%)(4).

Table 1: Tuberculosis Unit Wise Distribution of Patients Under Study

Tuberculosis Unit	No. of cases	Percentage
DTC Raipur	247	34.57
Dharsiwa	100	14.38
Bhathapara	65	9.35
Balodabazar	108	15.53
Rajim	90	12.94
Gariyabandh	85	12.23
Total	695	100

Table 2: Distribution of Patients According to Compliance

Compliance	No. of Cases	Percentage
Compliance	463	65.93
Non Compliance	232	33.38
Total	695	100.0

A total of 232 patients, who did not consume the drugs for more than 2 consecutive weeks were considered as non compliant. The reasons for non compliance were classified under

three heads as suggested by Bansal AK et al.(5) On further analysis, it was observed that out of the 232 non compliant patients, 140 (60.34%) patients failed to comply simply because of lack of information (Table 3), whereas 7.75% and 31.89% were non-compliant because of lack of motivation and different obstacles, respectively.

	Reasons	No.	%
Lack of Information	Fear of adverse reaction	47	20.26
	Felt better and stopped treatment	80	34.48
	Another doctor advised to stop treatment	13	5.60
Lack of Motivation	Difficult to take so many pills	6	2.59
	Postponement till another day (due to addiction etc.)	7	3.02
	Others (no faith in treatment, rumors etc)	5	2.16
Obstacles	Moved away from treatment center	36	15.52
	Timing not convenient	15	6.46
	Nobody to accompany to the center	9	3.88
	Non availability of medicine	6	2.59
	DOTS center far away	4	1.72
	Attitude of DOTS provider not Good	4	1.72

Various reasons observed in the present study for noncompliance are more or less similar to the findings of different studies conducted by different authors in different parts of the country. Main reason for noncompliance in the present study was having felt better (34.48%), similar to the findings of Juvekar SK et al (5) at 27%. Non compliance due to fear of adverse reactions was found in 20.26%, similar to the studies of Bhat S et al (13.20%)(4) and Juvekar SK et al (10.0%) (6). The 3rd most common cause of non compliance was found to be being moved away from the treatment centre (15.52%), similar to the findings of the study of Rani SM et al (22.0%). (8) Other reasons for noncompliance were difficulty to find time from work to visit the centre (6.46%), difficulty to take so many pills and non availability of medicine (2.59%) etc., similar to the findings of other studies.

It is therefore clear that to achieve the target of RNTCP, proper counseling of patients regarding various aspects of the disease is a must to ensure compliance.

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