Short Communication

IS MIGRATION A FACTOR LEADING TO DEFAULT UNDER RNTCP ?

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Summary
Objective: To study the contribution of migration to treatment default among tuberculosis patients treated under RNTCP
Methods: Retrospective study by interviewing the defaulters using semi-structured interview schedule to elicit the reasons for default including migration.
Results: Of the 531 patients registered under TB programme in 3rd and 4th quarters of 2001, 104 (20%) had defaulted for treatment. Among defaulters, 24% had migrated. The reasons for migration were: occupational (48%), returning to the native place (28%), domestic problems (12%) and other illnesses (12%).
Conclusion: After initiation of treatment, patients should be encouraged to report to the provider, if they are leaving the area, to transfer treatment to the nearest centre to ensure continuity of treatment. These measures will help to reduce default on account of migration and achieve the desired outcome in RNTCP. Availability of treatment under the DOTS strategy should be popularized among patients, providers and community. **[*Indian J Tuberc 2006; 53:33-36*]**

Key words: Tuberculosis, migration, default, DOT, RNTCP

INTRODUCTION

The 44th World Health Assembly (1991) recognized the growing importance of Tuberculosis (TB) as a public health problem[1]. The persistence of TB has been due to poorly managed TB control programmes[2,3], poverty, population growth, migration and a significant rise of TB cases in HIV endemic areas[4]. These issues should be taken into account when designing effective disease control programme. It has been found that in some regions of India, three out of four households include a migrant[5]. Internal migration was mainly for livelihood. Migrants cannot access various health and family care programmes due to their temporary residential status[5]. A study among patients discontinuing TB treatment under the earlier non-DOTS based National TB control programme (NTP) in Tamil Nadu had brought out migration, as one of the reasons for discontinuation of treatment[6]. A study on defaults among TB patients under Directly Observed Treatment Short-course (DOTS) strategy in Bangalore city has shown that non-availability of more than one third of defaulters for interview was mainly due to temporary migration to their native villages[7]. Our centre has identified migration (7%) as a reason for failure to initiate treatment among smear positive cases identified at the health facilities in Tiruvallur district, Tamil Nadu[8]. However, information on reasons for migration among TB patients is not available. The present study was undertaken to assess whether migration continues to be a problem among defaulters after decentralization of treatment services under the DOTS strategy and to find out the reasons for migration.

METHODS

Setting

The present investigation was undertaken in a tuberculosis unit (TU) of Tiruvallur district, where the DOTS strategy was introduced in May 1999. There are 15 Primary Health Centres (PHCs) and two government general hospitals, covering a population of 580,000. Of these, eight PHCs border the adjacent state of Andhra Pradesh and other

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districts of Tamil Nadu.

In a cohort of 531 patients registered for treatment between July and December 2001, 104 (20%) had defaulted for treatment. Medical social worker of Tuberculosis Research Centre (TRC) visited all defaulters using the address recorded in the TB register to elicit reasons for default, using a semi-structured interview schedule. For patients who had migrated, the reasons for migration were collected from a responsible family member or a close relative / neighbour of the patients. The corresponding DOT providers were also contacted to substantiate the reasons.

Definitions

Default: As per RNTCP guidelines default is defined as "a patient who, at any time after registration, has not taken anti-TB drugs for two months or more consecutively[9].

Migration: A patient who was reported to have moved out from the address given at the time of

Table: Risk factors for default among tuberculosis patients

Factors	Total (N 531) A	Defaulter (N 104) No. B	% (B/A)	Migration (N 25) No. C	% (C/B)
Sex:					
Male	400	94	24 (p<0.01)	23	25
Female	131	10	8	2	20
Age:					
< 45 years	268	49	18	13	27
≥45 years	263	55	21	12	22
Type of cases					
New	434	61	14 (p<0.01)	21	34 (p<0.01)
Old	97	43	44	4	9
Literacy					
Literate	287	42	15	11	26
Illiterate	176	32	18	12	38
Occupation					
Employed	287	51	18	15	29
Unemployed	176	23	13	8	35
Drinking					
No	289	32	11(p<0.01)	9	28
Yes	174	42	24	14	33
Duration of stay					
≤2 years	44	9	20	7	78
>2 years	416	64	15	15	23

Of the 531 patients included in the study, only 463 were available when interviewed at the residence after the start of treatment to elicit information on sociological profile.

registration, to another area in the same TU or another TU within district/State or to the other State, without informing the concerned health facility, is considered as a migrant for the purpose of this investigation.

Statistical analysis

Data were entered and analyzed using the SPSS (8.0 version SPSS Inc, Chicago, IL) package. Data were cross-tabulated to examine the relationship between socio-demographic, economic characteristics of patients and migrants. Statistical analysis was performed using the Chi- square test for test of association between default rate with migrants and non-migrants. If a cell value was <5, Fisher's exact test was used. A 'P' value of <0.05 was considered as significant.

RESULTS

Of the 104 defaulters, 21 (20%) were reported to have died at a later date after their outcome was declared as default; addresses could not be traced for 2 (2%) and 7 (6%) had completed treatment and were wrongly documented as default. Migration was one of the reasons for default among 25 (24%) of patients. Of the 49 patients who were interviewed, drug related problems such as bulk of tablets and side effects were reported by 37 (76%), alcohol consumption by 18 (37%), symptom free by 23 (47%), taking treatment from private practitioner or other government facility by 11 (22%) and work related problems such as inconvenient timings/going out stations on work by 8 (16%) and stigma by 4 (8%). (Patients had given multiple reasons for default).

Migration was significantly higher among newly diagnosed patients as compared to previously treated Category II cases [21 of 61 (34%) *vs*. 4 of 43 (9%) P<0.001], and among patients who had resided at the given address for two years or less compared to more than two years (7 of 9 *vs*. 15 of 64; P<0.001). However, there was no significant difference in migration among the patients belonging to border PHCs with others (Table 1).

Of the 25 default patients for whom migration was reported to be the reason for default, 12 (48%) of the migrated did so on occupational grounds, 7 (28%) returned to their native place, 3 (12%) had domestic problems and 3 (12%) had other illnesses.

DISCUSSION

This study has brought out migration as an important factor for treatment default (24% of the defaulters had migrated). A study from TRC had reported that migration was one of the reasons for patients discontinuing treatment under non-DOTS based NTP using Short-course Chemotherapy[6]. A previous study from Bangalore city had reported that 20% of the defaulters had migrated under the DOTS based programme[7]. In our series, migration was mainly due to occupational reasons and returning to their native place. Irregular and incomplete treatment on account of migration is likely to increase the burden of TB in the community. A report from WHO- Emro has brought out that the transient nature of their work and the long duration of TB treatment make it difficult for seasonal migrant workers to balance their economic needs with their health needs[10]. Since migration, whether temporary or permanent, contributes to nearly one fourth of default, it is important to work out strategies to overcome this. The RNTCP guidelines on this issue state that patient's house should be visited before start of treatment. This will help the providers to confirm patient's place of stay and decide to refer him to other health facility if he resides outside the jurisdiction of the treatment centre. However, this was not followed strictly due to practical constraints like lack of adequate staff, transport and health staff engaged with other programmes. It is alternatively suggested that verification of proof of residence such as ration card, voter's identification card, etc. can be made mandatory. Providers should be sensitized on the fact that migration is an important factor for default and encouraged to motivate the patients to take regular treatment for the prescribed duration.

Other reasons reported for default were drug related problems, alcohol consumption, symptom free and work related problems. Motivation of patients and taking care of minor reactions could

reduce the default. In a community survey conducted by TRC in the study area, annual migration rate was observed to be 5% (unpublished data). In our present study, 5% (25 of 531) may be a small number among the total patients studied. However, this amounted to 25% among those who defaulted. Motivation strategies to address the problem of migration should be worked out to suit the target population and local conditions. Before starting treatment, it is important to identify the migrant population. In the study area, health education programme through Information, Education and Communication (IEC) and Inter Personal Communication (IPC) has been strengthened. In addition, RNTCP has got a mechanism to refer the migrant population to the respective places for treatment. Hence, after diagnosis, if a patient is found to be non-resident and is moving right away, he/she can be referred to another treatment site convenient to the patient. After initiation of treatment, patients should be encouraged to report to the provider, if they are leaving the area, to transfer treatment to the nearest centre to ensure continuity of treatment. These measures will help to reduce default on account of migration and achieve the desired outcome in RNTCP. Availability of treatment under the DOTS strategy should be popularized among patients, providers and community. The health system needs to be improved to address this problem in motivating and improving the patient's perception about disease and encouraging the patients to complete the treatment. In this context, the use of non-DOTS regimens under RNTCP could be another alternative for patients who are likely to migrate while on treatment. For this population, government has to evolve policy to treat such population with suitable non-DOTS regimen. This will not only take care of such patients by not denying the treatment during their stay in the particular place but also take care of programme indicators to desired level. Further research is needed in this area to further strengthen TB control programme.

Limitation of the study

The migrated patients were not contacted in person by the investigator. The reasons for their migration were elicited from close relatives and DOT providers. This information provided from secondary sources could not be confirmed from patients. This is a major limitation in this study.

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