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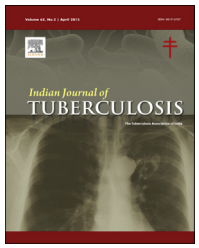

Original Article

Home based care to multi-drug resistant tuberculosis patients: A pilot study☆

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ABSTRACT

Background: India is a high tuberculosis burden and large population setting country. Multidrug-resistant tuberculosis patient has to undergo 24–27 months treatment and is expected to adhere to it. There is a need to increase compliance of MDR Regimen in MDR-TB cases, to prevent its further spread. The present study focuses on describing the role of home care support with counseling in the outcome of MDR-TB patients, in Delhi, India.
Material and methods: This is a prospective study carried out at a Community Health Centre, Delhi, involving 113 MDR-TB patients as and when they got registered with DOTS Plus centres, in two government hospitals of Delhi between August 2009 and March 2010. The study period was August 2009 to October 2012. These patients received daily MDR Regimen from their respective DOTS Providers. The patients' names and addresses were taken from the lists supplied by these hospitals. Final analysis was carried out for 101 MDR-TB cases.
Results: Out of 101 patients treatment outcomes were: 69.3% cured and 2.0% treatment completed (treatment success rate 71.3%). A low default rate of 6.9% was seen which is assumed to be due to the home based care.
Conclusion: These results indicate that Home based care with counseling support is an important intervention in management of MDR-TB patients and it needs to be substantiated by further research.

1. Introduction

Many countries participating in a global survey of anti-TB drug resistance, registered cases of MDR-TB by mid-1990s.[1] The revised Global Plan to Stop TB, 2006–2015 aims to reach universal access to sound management of MDR-TB and XDR-TB by 2015 in all countries; and near-to universal access in the 25 countries with high burdens of MDRTB and XDR-TB by

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2010.[2] The MDR TB services in India were initiated in 2007 in Gujarat and Maharashtra.[3] The Government of India's Revised National Tuberculosis Control Programme (RNTCP) uses regimen for MDR-TB which lasts for 6–9 months of the Intensive Phase and 18 months of the Continuation Phase.[4] As treatment course is long, expensive, and more toxic second line anti-TB drugs are used, this leads to low treatment success and high loss-to-follow-up rates. Thus retention and adherence to therapy are major challenges in treatment of MDR TB patients. In a study in India Dhingra et al reported a successful outcome only in 48% patients.[5] Default rates over 15% are found in several countries including Korea (32%),[6] Taiwan (29%),[7] Russia (20%),[8] Italy (17%),[9] Spain (16%),[10] South Africa (29%),[11] Argentina (20%),[12] and Peru (19%).[13]

'Treatment literacy' is one of the successful strategies to enhance adherence to anti-retroviral. Patients and families can only shoulder such a responsibility if they are informed. This approach has been endorsed by human rights organizations that recognize that patients have rights but when empowered also have responsibilities.[14] In a South African study an integrated home based treatment for MDR TB and HIV ensured high levels of treatment compliance with adherence support[15] and immediate adverse event monitoring and management.

Oyieng'o et al provided home treatment for MDR TB patients in Kenya and advocated that their program addressed both patient needs and health system needs.[16]

Our hypothesis is that the 'Home based support with counseling' gives opportunity to educate patient and care taker that ensures retention and adherence to therapy. Thus our study objective is to study the role of comprehensive home based care and support with counseling in the outcome of MDR-TB patients, in Delhi, India.

2. Material & methods

2.1. Study setting and patient selection

This is a prospective study carried out at a Community Health Centre, Delhi, involving 113 MDR-TB patients as and when they got registered with DOTS Plus centres, in two government hospitals of Delhi between August 2009 and March 2010. The study period was from August 2009 to October 2012.

These patients received daily MDR Regimen from their respective DOTS Providers. The patients' names and addresses were taken from the lists supplied by these hospitals.

2.2. Study design

A prospective study of 113 MDR-TB cases.

2.3. Inclusion and exclusion criteria

2.3.1. The inclusion criteria

- All MDR TB patients from Northeast, East, Central and West districts of Delhi, whose names appeared on the lists provided by LN Chest Clinic and who gave consent for participation.

2.3.2. Exclusion criteria

- Patients who refused consent.
- Very sick patients.
- Patients who could not be found on first visit (already dead or defaulted).

The 113 MDR-TB patients from the lists provided time to time by above mentioned hospitals were selected as our sample. As these patients belonged to the districts mentioned above this was a convenient sampling method. Out of these 2 had to be excluded from the study as they were very sick and remained in hospital for several months and there was no chance of giving home care to them. Another 7 and 3 MDR-TB cases had to be excluded as they were either dead or had already defaulted at the time of first visit of home care teams. Thus finally the analysis was carried out for remaining 101 MDR-TB cases.

2.4. Informed consent

An informed written consent in Hindi was taken from each MDR-TB patient before enrolling her/him in this study.

2.5. The tool

A proforma was prepared and discussed with stakeholders such as State TB Officer, WHO TB Consultant, Medical Superintendent and Nodal Officer TB of a Govt. Hospital.

2.6. Home care support teams

Two mobile multi-disciplinary teams of home care providers – Health educator cum care giver and a Team assistant cum care giver were developed. Each team had one male and one female worker. The team members were either Multipurpose Health Workers or Intermediate/Graduate with experience of working in the community. The junior team members were trained home care health attendants with working literacy.

The teams were trained using various RNTCP TB modules. The training included knowledge of tuberculosis, RNTCP, DOTS[17] and MDR TB.[18] They were also made aware of treatment of MDR-TB, its adverse drug reactions, natural history of the disease and co-morbidities. Skills training in communication and counseling was given by a registered NGO. Training in basic care of chronic patients such as back care, dressings, oral and general hygiene and sanitation, nutrition was imparted. Emphasis was laid on personal protection of the team members.

2.7. Home care support

Most of the patients were quite depressed and hopeless when they had to start MDR treatment because they had already taken several months CAT I and CAT II treatment earlier and had failed to get cured. Many patients had to leave their jobs due to TB and faced financial problems.

The teams made home visits in every 15 days in intensive phase and every 45 days in continuation phase. They spent