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Analysis of the Reasons for "Defaulter and Failure Cases" Of Tb under Dots, Nandyal, Kurnool District.

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Abstract:
Background: *Tuberculosis (TB) is major public health problem worldwide. The problem of drug default is as old as chemotherapy itself. It has been encountered in all those diseases where the drugs have to be administered for a long time. However, it assumes a social significance in tuberculosis, because a drug defaulter in this diseases poses a threat not only to himself, but also to the community he lives in, by spreading the drug resistant organisms. For the T.B. clinics, it poses many additional problems e.g. default actions, retrieval of defaulters and reorganization of the chemotherapeutic schedule. Treatment failure was defined as a patient who is still sputum smear positive five months or more after the commencement of treatment. A defaulter was defined as a patient whose treatment was interrupted for two consecutive months or more.*
Objectives: *The aim of this study was to investigate reasons underlying failure to complete DOTS treatment in TB patients in Nandyal urban, Kurnool dist.*
Methodology: *A retrospective study.*
Results: *In my study 110 cases are registered defaulter and failures. The sex wise distribution of the defaulter and failure cases are males (62%), and females (38%). The study cases are told multiple reasons. The reasons for the defaulter and failure cases are alcoholism (49.1%) is the major cause for the defaulter and failure case. Next followed by social stigma (20.9), carelessness and forgetfulness (16.4%), symptoms relieved (13.6%), feeling of wellbeing (12.7%), financial constraints (10%), and symptoms not relieved (4.5%), side effects (2.7%), long distance to DOTS center (1.8%), and patient not accepting he has tuberculosis (1.8%).*
Conclusions: *In my study conclusions are a number of patients reported intermittent use of private clinics for privacy and also to avoid social stigma while visiting DOTS Centre. Private clinics generally lack record keeping and follow up arrangements, and do not link records with those of the DOTS Centre. Integrating TB care between all providers is another of the priority areas for the WHO 2006 "Stop TB" strategy. Strong association exist between socioeconomic status & compliance to TB management. No statistical significant difference - age & sex distribution. Widevariations exist in age wise pattern. Multiple reasons associated with not adherence to treatment schedule.*
Recommendations: *Based on the findings of this study, it is recommended that accessibility to quality services and improvement in patient education needs to be done. More DOTS centers with more flexible working hours are needed so that they are easily accessible to all patients. Adequate education to community and family-members on DOTS strategies is recommended. DOTS program should be introduced in all private clinics as a priority as suggested by the WHO. Home visits by the DOTS workers should be encouraged especially targeting working, elderly and severely ill patients.TB will remain a major cause of morbidity and mortality in Nepal because of social issues like poverty, alcohol consumption, illiteracy, distance from health centers and stigma about the disease. This issue needs to be addressed appropriately and aggressively so that the country could contribute significantly in achieving the WHO goal of reducing the Global burden of TB.*
Key Words: *Tuberculosis, DOTS Centre, Defaulter, failure.*

I. Introduction

Tuberculosis (TB) is major public health problem worldwide. The problem of drug default is as old as chemotherapy itself. It has been encountered in all those diseases where the drugs have to be administered for a long time. However, it assumes a social significance in tuberculosis, because a drug defaulter in this diseases poses a threat not only to himself, but also to the community he lives in, by spreading the drug resistant organisms. For the T.B. clinics, it poses many additional problems e.g. default actions, retrieval of defaulters and reorganization of the chemotherapeutic schedule[1].

India accounting nearly $1/5^{th}$ of the global burden of tuberculosis. The definition defaulter means; patients interrupting treatment for more than eight weeks consecutively after initiation of treatment. The failure

means; Patient who was initially smear-positive and who remained smear-positive at month 5 or later during treatment.

The services of RNTCP with DOTS strategy - available in the entire country by March 2006. RNTCP achieved improved cure rates & reduction in unfavorable outcomes. A DOT (Directly Observed Treatment, Short course) was implemented by the World Health Organization (WHO) in South Asia in 1993-1994 and in India….. Its five elements are political commitment; case detection by sputum smear microscopy; a system to ensure regular drug supplies; a standard recording and reporting system, including the assessment of treatment outcomes and standard short-course chemotherapy administered under standardized case-management conditions.[2]

The goal of DOTS is to reduce transmission in the community by aiming for cure of at least 85%, and detection of at least 70% of new smear positive cases.[3] The purpose of directly observed therapy is to increase the probability of treatment completion, and to thereby avoid treatment failure, persistent infectivity, drug resistance and relapse.[2] When based in primary health centers DOTS has been shown to have equivalent outcomes and to be more cost effective than treatment regimens based on in-patient supervision or large hospital centres.[2]

Multi Drug Resistant (MDR)-TB is defined as resistance to both the fi rst-line TB drugs, Isoniazid and Rifampicin. Since the early 1990's MDR-TB has been on the rise and now threatens TB control programs in many parts of the world. It can be primary, in a patient who has not been treated before, reflecting overall poor TB control in the community, or acquired, reflecting either poor adherence or an inadequately conducted individual program. MDR-TB makes management even more difficult because of the need for longer courses of less potent, more toxic and more expensive second line drugs.[5] Proposed explanations for the rise in MDR-TB include HIV, physician mismanagement, substance abuse and failure to complete therapy due to incomplete or inadequate therapy.[1] The prevention and control of MDR-TB is one of the aims of the 2006 WHO "Stop TB" strategy.[2]

Poverty and tuberculosis are intimately connected.[6] The poor have higher contact rates due to crowded homes, more active infection due to sub-optimal nutrition and working conditions, and they frequently have less access to diagnostic and treatment facilities.[6] They may have less flexibility regarding work and clinic attendance and less ability to pay for medications and transport. A study conducted in an urban area of India in 2000-01 found one quarter of their non-compliant patient were the only economically active person in the family and had no spare time to visit DOTS centres.[7]

One way of dealing with this lack of understanding is to increase the level of knowledge in the whole community. TB patients share the community's cultural beliefs about causes of TB and its spread. A common misconception was that separate utensils and food were necessary for TB patients.[10] Some may choose to seek help from traditional healers. The stigma of the disease is likely to be influenced by many of these beliefs and decisions.[11]

Alcoholic patients are more likely to be irregular in their compliance with treatment. A study in India found 28% of defaulters were alcoholic. Distance from the health Centre and inconvenient office hours have also been found to be important in treatment compliance with DOTS therapy.[12] Patients often discontinue TB medication because of such side effects as weakness, GI upset, allergy, jaundice and passing of red urine.[8]

II. Materials And Methods

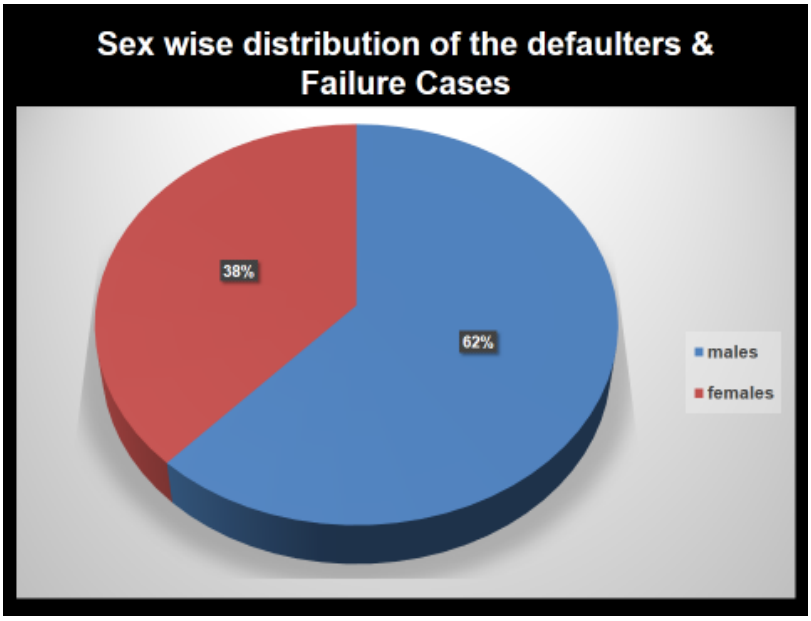
The study was conducted in Nandyal town, Kurnool dist. The Study was design in a descriptive analytical study using semi structured questionnaires after identifying cases from register data.All defaulter and treatment failure TB patients in the DOTS program in Nandyal town, Kurnool district from Jan 2009 to July 2013 were included in the study. TB cases continuing with or completing the DOTS program during the study period were excluded from the sample.

Treatment failure was defined as a patient who is still sputum smear positive five months or more after the commencement of treatment. A defaulter was defined as a patient whose treatment was interrupted for two consecutive months or more.[3]

III. Results

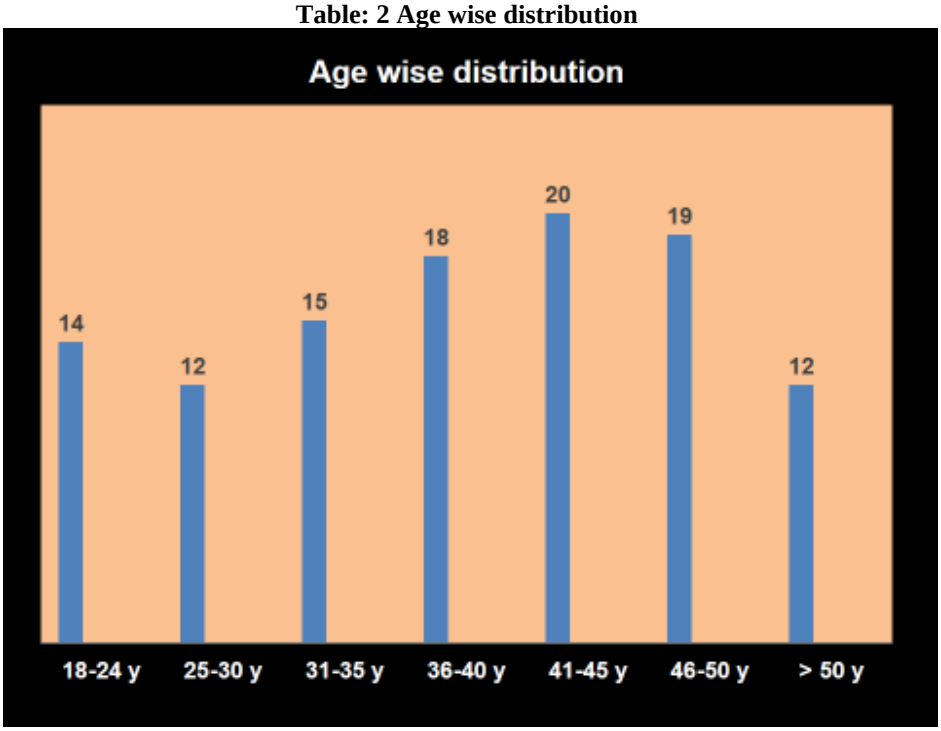
In my study 110 cases are registered defaulter and failures. The sex wise distribution of the defaulter and failure cases are males (62%), and females (38%). (Table: 1).

Table: 1 Sex wise distribution



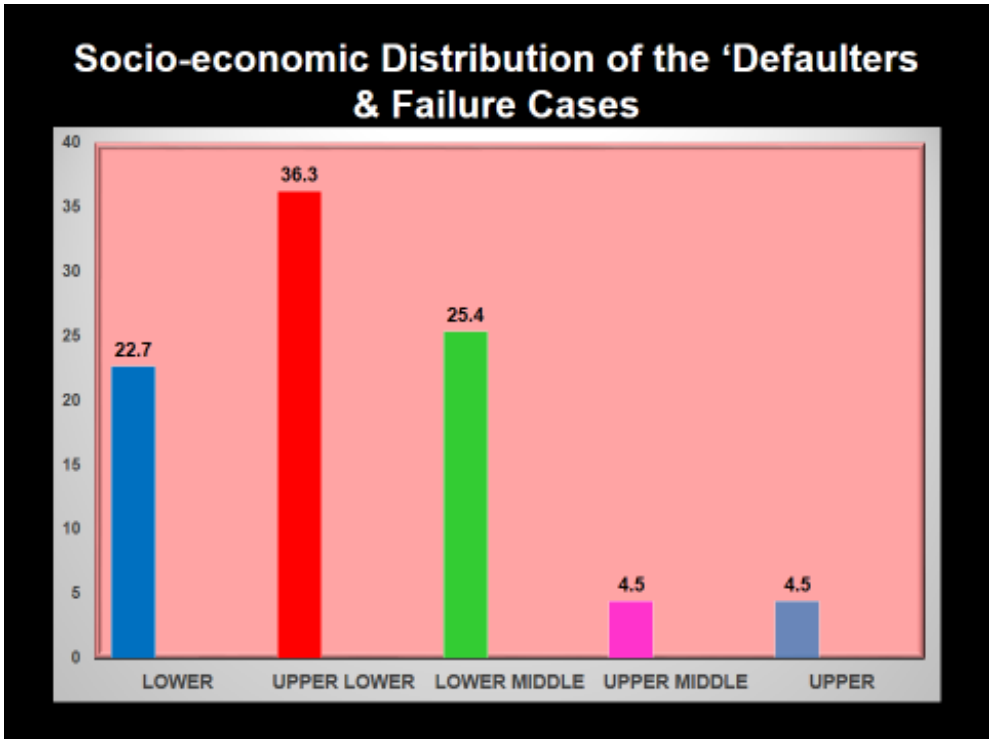
The age wise distribution of the defaulter and failure cases are 18-24 years are (14), 25-30 years are (12), 31-35 years are (15), 36-40 years are (18) 41-45 years are (20), 46-50 years are (19), and >50 years (12). (Table: 2).

Table: 2 Age wise distribution



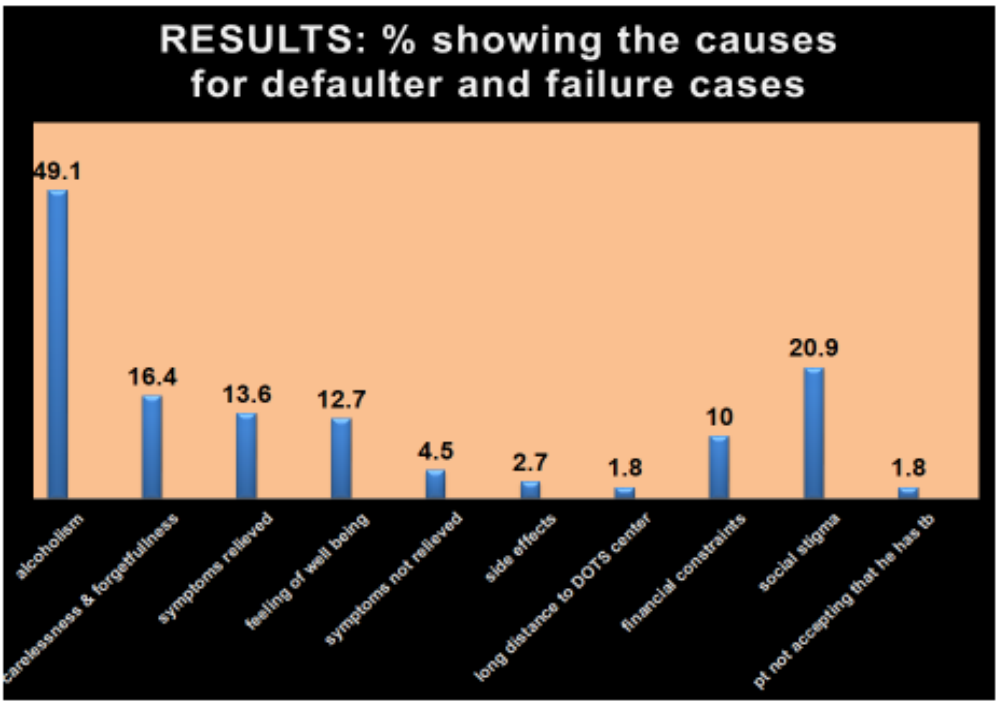
The socio economic statuses of the defaulter and failure cases are lower (22.7%), upper lower (36.3%), lower middle (25.4%), upper middle (4.5%), and upper (4.5%). (Table: 3).

Table: 3 Socio-Economic Distributions



The study cases are told multiple reasons. The reasons for the defaulter and failure cases are alcoholism (49.1%) is the major cause for the defaulter and failure case. Next followed by social stigma (20.9), carelessness and forgetfulness (16.4%), symptoms relieved (13.6%), feeling of wellbeing (12.7%), financial constraints (10%), and symptoms not relieved (4.5%), side effects (2.7%), long distance to DOTS center (1.8%), and patient not accepting he has tuberculosis (1.8%). (Table: 4).

Table: 4 Multiple Reasons for defaulter and failure cases



All of the defaulter and failure patients in this study were financially poor had trouble leaving work to go to the DOTS Centre, as well as difficulty with distance

And transport. Many cases of defaulter and failure patients are addicted to alcoholism. Many DOTS worker felt that lack of knowledge was one of the reasons for defaulting and many patients also felt that their knowledge on TB was below average. The previous study in eastern Nepal had discussed about lack of knowledge on side effects of anti-TB drugs and also about the consequences of stopping TB treatment.[9]

In one south Indian study 25% of patients almost two third of the defaulters were alcoholic.[12] in my study alcoholism is a major issue for the defaulting and failure treatment. Nearly half of the defaulters and treatment failures were spending

Money on alcohol.

IV. Conclusion

In my study conclusions are a number of patients reported intermittent use of private clinics for privacy and also to avoid social stigma while visiting DOTS Centre. Private clinics generally lack record keeping and follow up arrangements, and do not link records with those of the DOTS Centre. Integrating TB care between all providers is another of the priority areas for the WHO 2006 "Stop TB" strategy.[2]

Strong association exist between socioeconomic status & compliance to TB management.

No statistical significant difference - age & sex distribution.Wide variations exist in age wise pattern.

Multiple reasons associated with not adherence to treatment schedule.

Home visiting may be a powerful tool to reduce the defaulter rate after my research and visited the homes of the defaulters and failure cases under one particular DOTS Centre, 8 of them returned to treatment.

V. Recommendations

Based on the findings of this study, it is recommended that accessibility to quality services and improvement in patient education needs to be done. More DOTS centers with more flexible working hours are needed so that they are easily accessible to all patients. Adequate education to community and family-members on DOTS strategies is recommended. DOTS program should be introduced in all private clinics as a priority as suggested by the WHO. Home visits by the DOTS workers should be encouraged especially targeting working, elderly and severely ill patients.

TB will remain a major cause of morbidity and mortality in Nepal because of social issues like poverty, alcohol consumption, illiteracy, distance from health centers and stigma about the disease. These issues needs to be addressed appropriately and aggressively so that the country could contribute significantly in achieving the WHO goal of reducing the Global burden of TB.[15]

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