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THE PROFILE AND TREATMENT OUTCOME OF TUBERCULOSIS PATIENTS IN PRIMARY HEALTH CENTRE VANTAMURI, BELGAUM-A RETROSPECTIVE RECORD BASED STUDY

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ABSTRACT

Tuberculosis remains a world-wide public health problem despite of advances in science and availability of highly effective drugs against it. India is the highest TB burden country in the world accounting for nearly 25% of the global TB. Poverty, illiteracy and stigma attached to disease, especially in rural India further complicate the problem. As sparse published data are available on this subject, we have done retrospective record based study to know the profile and outcome of patients registered under RNTCP in Primary Health Centre Vantamuri, Belgaum.

The present study was conducted in Primary Health Centre (PHC) Vantamuri which is a rural field practice area of Department of Community Medicine, J.N.Medical College Belgaum. This was a record based study involving a review of records maintained routinely by Revised National Tuberculosis Control Programme (RNTCP) register in PHC Vantamuri, Belgaum. Study was done in the month of February 2013. All 190 TB patients registered between 2008 to 2012 were taken into consideration. Results were analyzed by rates, ratio and percentages.

Out of total 190 tuberculosis patients, 26.84% were registered in 2008, 25.78% in 2009, 16.31% in 2010, 15.78% in 2011 and 5.26% were registered in 2012. In this study 56.31% were males 43.68% were females. Among the study participants majority that is 166 [87.36%] were new, 18 [9.47%] had relapse and 6 [3.15%] were defaulter. Nearly seventy five percent of study participants were suffering from Pulmonary TB. Around sixty eight percent of the study participants were diagnosed by sputum examination and remaining 32.10% were diagnosed by chest x ray. Among the TB patients 9.47% were HIV positive, 90.52% were HIV negative. Out of 190 Patients, 147 (77.36 %) were Category I, 30 (15.78%) were Category II, 13 (6.84%) were Category III.

Though the case detection and cure rate (target 2015) of Vantamuri PHC are similar to that of Belgaum district, India and World the mortality has been observed to be high. Reasons for mortality need to be studied by doing prospective studies.

Key words- Primary Health centre, Treatment outcome, Tuberculosis

INTRODUCTION

Tuberculosis remains a world-wide public health problem despite of advances in science and availability of highly effective drugs against it. Tuberculosis (TB) causes

approximately two million deaths per year and 98% occur in low-income countries.^{1,2} India is the highest TB burden country in the world accounting for nearly 25% of the global TB.³ The Revised National Tuberculosis Control

Program (RNTCP), implemented throughout the country, has been successful in achieving the global targets of 70% case detection and 85% treatment success rates in new smear positive TB patients since 2007.⁴ Over the next 5 years (2012–17), the program aims to achieve universal access to TB services with a treatment success rate of at least 90%.⁴ Detection of mere 70% of the new cases is not enough, detecting them early and putting them on treatment and ensuring cure should be the highest priority.^{5,6} One untreated case of smear positive pulmonary tuberculosis can spread infection to 10 to 12 other non infected persons.⁷ Poverty, illiteracy, and stigma attached to disease, especially in rural India further complicate the problem.⁸ As sparse published data are available on this subject, we have done retrospective record based study to know the profile and outcome of patients registered under RNTCP in Primary Health Centre Vantamuri, Belgaum.

MATERIALS AND METHODS

The present study was conducted in Primary Health Centre (PHC) Vantamuri which is a rural field practice area of Department of Community Medicine, J.N. Medical College Belgaum. This was a record based study involving a review of records maintained routinely by the RNTCP register in PHC Vantamuri, Belgaum. Study was done in the month of February 2013. All TB patients registered between 2008 to 2012 were taken into consideration. Total number of TB registered patients from 2008 to 2012 is 190 so, sample size is 190. Since the study involved a review of existing records with no patient interaction, informed consent was considered unnecessary and a waiver of informed consent was received. The data collected was computerized and developed on Microsoft office excel 2007 software on regular basis. Results were analyzed by rates, ratio and percentages.

RESULTS

Out of total 190 tuberculosis patients, 51[26.84%] were registered in 2008, 49[25.78%] were registered in 2009, 31[16.31%] were registered in 2010, 30[15.78%] were registered in 2011, 29[15.26%] were registered in 2012 (Table I). In this study among 190 TB patients 107 [56.31%] were males 83 [43.68%] were females. (Table II) Among the study participants majority that is 166 [87.36%] were new, 18 [9.47%] were relapse, 6 [3.15%] were defaulter. (Table III) In this study most of study participant's i.e. 142 (74.73 %) were suffering from Pulmonary TB and 48 (25.26) were having Extra pulmonary TB. (Table 1V) Out of 190 TB patients, 129[67.89%] were diagnosed by sputum examination, 61[32.10%] were diagnosed by chest x ray.

(Table V) Among the TB patients 18[9.47%] were HIV positive, 172[90.52%] were HIV negative. (Table VI) Out of 190 Patients, 147 (77.36 %) were Category I, 30 (15.78%) were Category II, 13 (6.84%) were Category III. (Table VI) In our study among 190 TB patients 176 [92.63%] were cured and remaining 14 [7.36%] were expired. (Table VIII)

DISCUSSION

This retrospective record based study was done in the month of February 2013. All TB patients registered between 2008 to 2012 were taken into consideration to know the profile and outcome of patients registered under RNTCP in Primary Health Centre Vantamuri, Belgaum. In this study among 190 TB patients 107 [56.31%] were males 83 [43.68%] were females. Probably because of greater exposure, prevalence of TB was more in male which was found in our study was similar to other studies.^{9,10}

In India, HIV seropositivity among tuberculosis patients has been reported to be around 0.4% to 4.9%.¹¹ Hospital based HIV seroprevalence studies amongst tuberculosis patients from different regions of India have shown a great variation – the prevalence rates varying from 0.4% - 28.1% have been reported. In certain cities such as Chennai and Mumbai, a higher prevalence has been observed.¹² In our study the prevalence of HIV among the TB patients was 9.47%.

In this study the prevalence of Pulmonary TB was 74.73% and Extra pulmonary TB was 25.26%. Extra Pulmonary Tuberculosis (EPTB) has existed as a disease entity for centuries. It is a milder form of disease in terms of infectivity as compared to pulmonary tuberculosis. In India, EPTB comprises 20% of all TB cases. Its prevalence in the country varies between 8.3-13.1% in different districts according to cohort analysis by Central TB Division, Ministry of Health & Family Welfare in 2002.¹³

Table I. Distribution of TB patients according to year of enrollment

YEAR	NUMBER	PERCENTAGE
2008	51	26.84
2009	49	25.78
2010	31	16.32
2011	30	15.79
2012	29	15.26
Total	190	100

Table II: Distribution of TB patients according to sex

SEX	NUMBER	PERCENTAGE
Male	107	56.32
Female	83	43.68
TOTAL	190	100

Table III. Distribution of TB patients according to category

CATEGORY OF PATIENTS	NUMBER	PERCENTAGE
New	166	87.36
Relapse	18	9.47
Defaulter	6	3.17
TOTAL	190	100

Table IV: Distribution of TB Patients According To Type of Disease

TYPE OF DISEASE	NUMBER	PERCENTAGE
Pulmonary	142	74.74
Extra pulmonary	48	25.26
TOTAL	190	100

Table V: Distribution of TB Patients According To method Of Diagnosis

METHOD OF DIAGNOSIS	NUMBER	PERCENTAGE
Sputum Examination	129	67.89
Chest X Ray	61	32.11
TOTAL	190	100.00

Table VI: Distribution of TB Patients According To HIV Status

HIV STATUS	NUMBER	PERCENTAGE
Positive	18	9.48
Negative	172	90.52
TOTAL	190	100

Table VII: Distribution of TB Patients According To RNTCP Category

RNTCP CATEGORY	NUMBER	PERCENTAGE
CAT I	147	77.36
CAT II	30	15.78
CAT III	13	6.86
TOTAL	190	100

Table VIII: Distribution of TB Patients According To the Out Come Of Treatment

OUT COME OF TREATMENT	NUMBER	PERCENTAGE
Cured	176	92.64
Expired	14	7.36
TOTAL	190	100

CONCLUSION

Though the case detection and cure rate (target 2015) of Vantamuri PHC are similar to that of Belgaum district, India and World the mortality has been observed to be high. Reasons for mortality need to be studied by doing prospective studies.

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