HEALTH SEEKING BEHAVIOUR AND REASONS FOR TUBERCULOSIS DIAGNOSIS DELAY AMONG POPULATIONS ATTENDING DOTS CELL AT TERTIARY HEALTH CARE TEACHING HOSPITAL

Abdul Majeed Arshad[1], Irfan Ismail Ayub[2], Prasanth G[3], R. Leela Bhavani[4], Navaneetham K[5], Natraj Manimaran[6], Chandrasekar C[7], B. Divya[8]

[1]Assistant Professor, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[2]Assistant Professor, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[3]Postgraduate Student, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[4]Respiratory Therapist, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[5]Respiratory Therapist, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[6]Senior Resident, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[7]Professor and HOD, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.
[8]Postgraduate Student, Department of TB and Pulmonary Medicine, Sri Ramachandra Medical College Hospital and Research Institute.

ABSTRACT

BACKGROUND

Early diagnosis and treatment of Tuberculosis is crucial for reduction of infection rate and improving outcome of the treatment. Despite efforts made through media to sensitise community about the symptoms of TB, still there is a significant delay in healthcare seeking among TB patients.

The objectives of this study were to describe the health seeking behaviour of TB patients to assess patient delay and the number of health care facilities visited before the start of TB treatment.

MATERIALS AND METHODS

This is a cross-sectional study conducted over 90 patients who are newly diagnosed. Smear positive pulmonary tuberculosis patients in outpatient Department of Pulmonary Medicine, Sri Ramachandra Hospital.

RESULTS

Amongst all the investigations considered in our study majority of the patients had done chest x-ray [50.0%], while they were symptomatic for more than 3 weeks, out of which [33.3%] had done sputum analysis prior to consulting us. So this shows the awareness of sputum analysis amongst our population, where imaging is given more importance than microbiological analysis.[3,6] Majority of the patients (84.4%) were aware of the facility for the management of TB. The main reason for patient delay among those who presented late to the health system involve financial, psychosocial and cultural characteristic of patient.

CONCLUSION

We have inferred that the delay is multifactorial. The need of the hour is educating at all possible levels. It is not always the patient's factor that is the reason for the delay, the delay happens because of the lack of awareness in the method of testing both from the patient's side as well as from the doctors.

KEYWORDS

Tuberculosis, Dots Cell, Diagnostic Delay, Health Care

HOW TO CITE THIS ARTICLE: Arshad AM, Ayub II, Prasanth G, et al. Health seeking behaviour and reasons for tuberculosis diagnosis delay among populations attending dots cell at tertiary health care teaching hospital. J. Evolution Med. Dent. Sci. 2018;7(08):944-947, DOI: 10.14260/jemds/2018/216

BACKGROUND

India is the highest tuberculosis (TB) burden country in the world accounting for one-fifth of the global incidence.[1] The objective of this study is to identify the healthcare seeking behaviours of smears positive pulmonary TB patients. RNTCP emphasises on achieving a target of 70% case detection as well as 85% cure of TB patients. Delay in diagnosing the patient or initiation of treatment, however, is not taken into account in any of the programme evaluation indicators.

'Financial or Other Competing Interest': None.
Submission 24-11-2017, Peer Review 06-02-2018,
Acceptance 12-02-2018, Published 19-02-2018.
Corresponding Author:
Dr. Abdul Majeed Arshad,
Old No. 24, New No. 4, 12th Cross Street, Shastri Nagar,
Adyar, Chennai-600020.
E-mail: dr.arshad.majeed@gmail.com
DOI: 10.14260/jemds/2018/216

Early detection followed by effective therapy is extremely important in controlling tuberculosis. Delay in diagnosis results in increased infectivity in the community.[2] Smear positive cases are more likely to infect other individuals and it is estimated that an untreated smear-positive patient on an average can infect about 10 contacts annually and over 20 during the natural history of the disease until death. Delay in tuberculosis diagnosis may also lead to a more advanced disease state at presentation, which contributes to adverse sequelae and overall mortality.[3] In high prevalence countries, delays in diagnosis in treatment are often prolonged.[4] These delays occur at the level of patients as well as health system.

MATERIALS AND METHODS

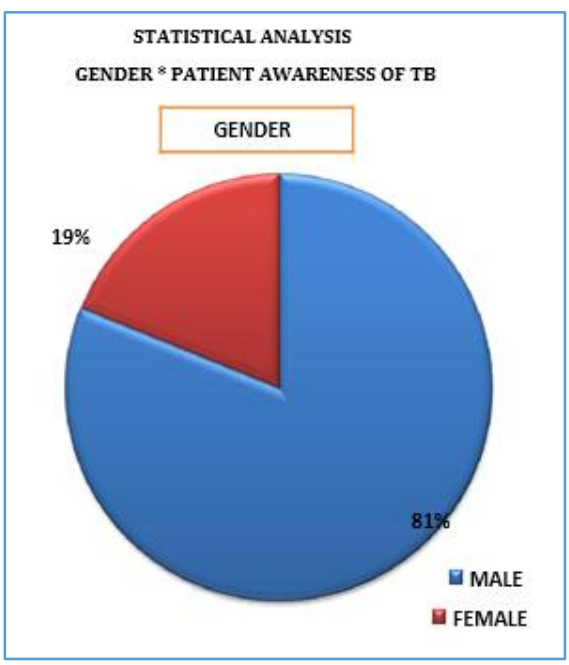
Study Population

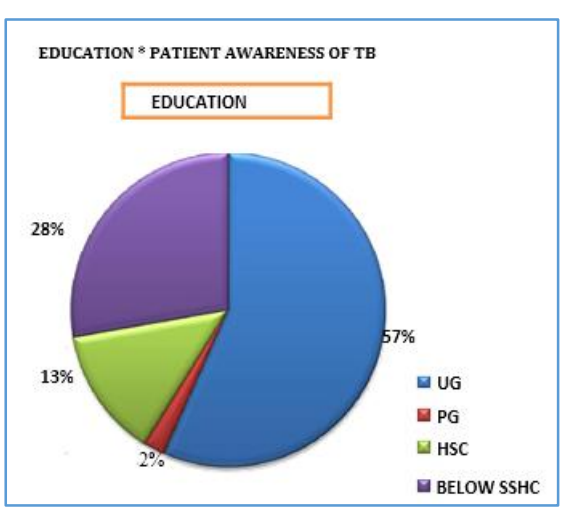
90 patients. (All newly diagnosed Smear positive pulmonary tuberculosis patients).

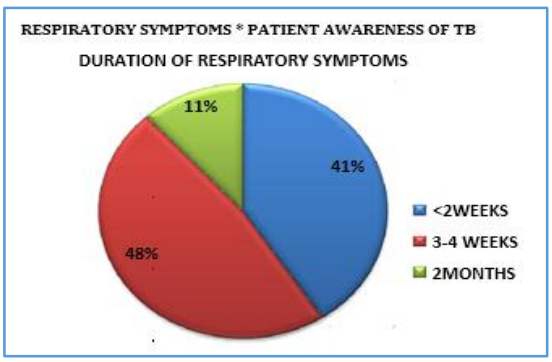
Study Centre
Outpatient Department of Pulmonary Medicine, Sri Ramachandra Hospital.

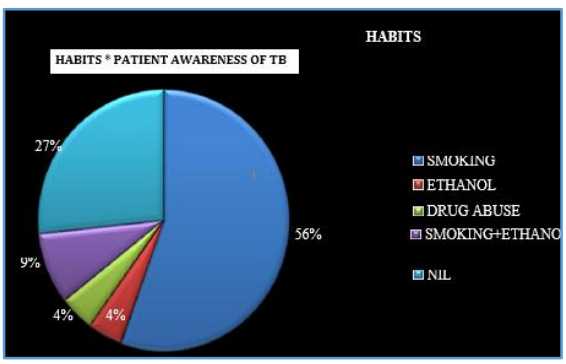
Data was sorted, coded and entered into the computer using statistical software, Statistical Package for Social Sciences (SPSS) version 15. Descriptive statistics such as frequency, percentage and mean was used to describe and summarise the data. The mean delay was calculated as average days the patients reported to take before consulting a health facility since the onset of the symptoms. The cut-off point for level of significance was set at p-value < 0.05 and all tests were two sided. Data were presented using tables and figures.

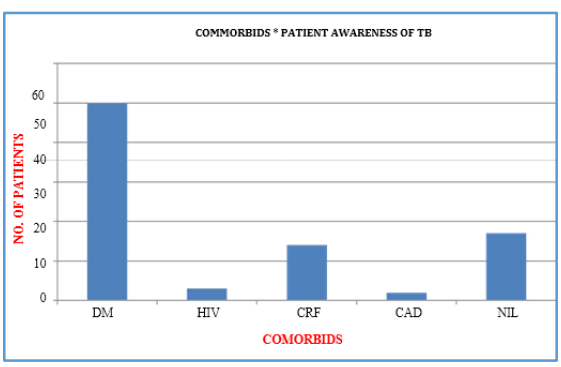
Study Design
It was a descriptive study during which newly diagnosed smear positive pulmonary TB patients consulting at the outpatient Department of Pulmonary Medicine, Sri Ramachandra Hospital were enrolled from November 2016 to May 2017. Before their enrolment, patients who gave their informed consent to participate in the study were interviewed with a structured questionnaire.

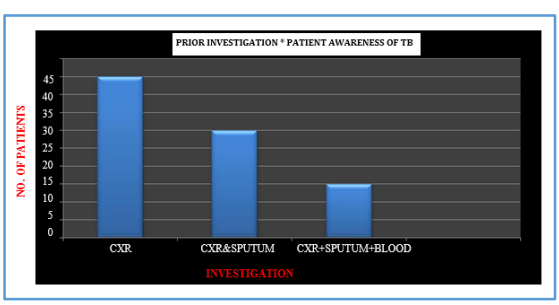


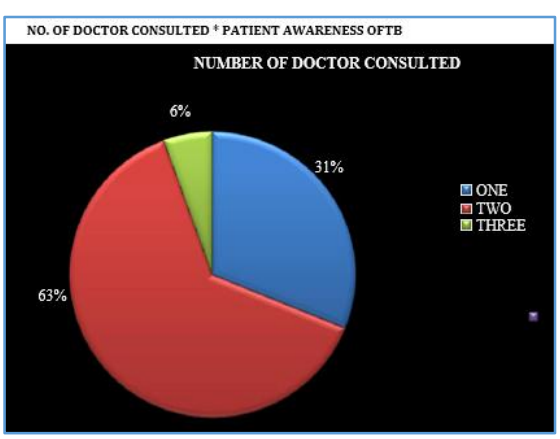


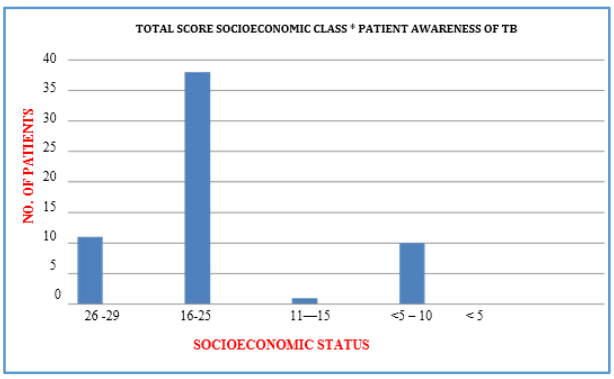


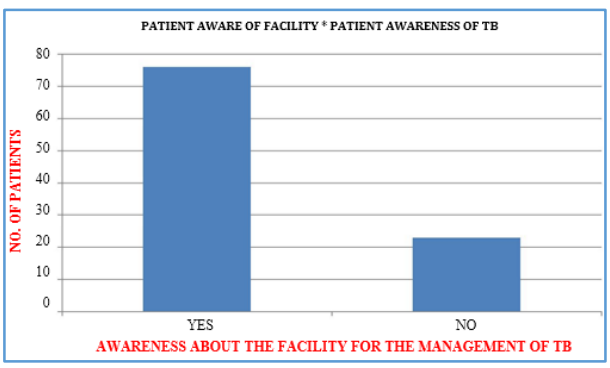


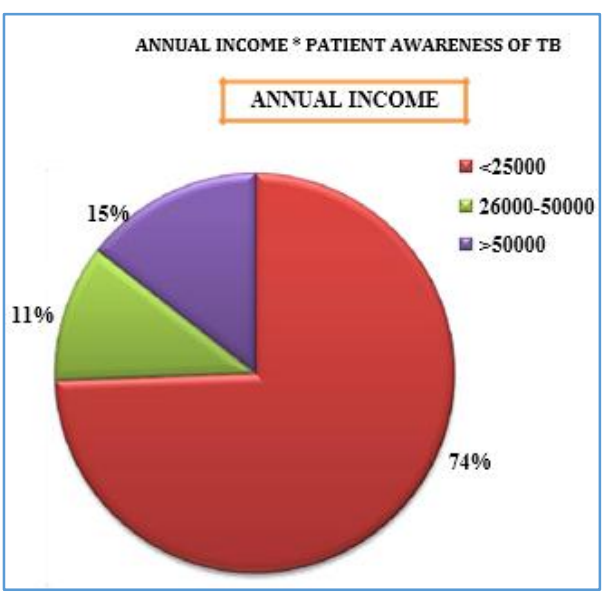


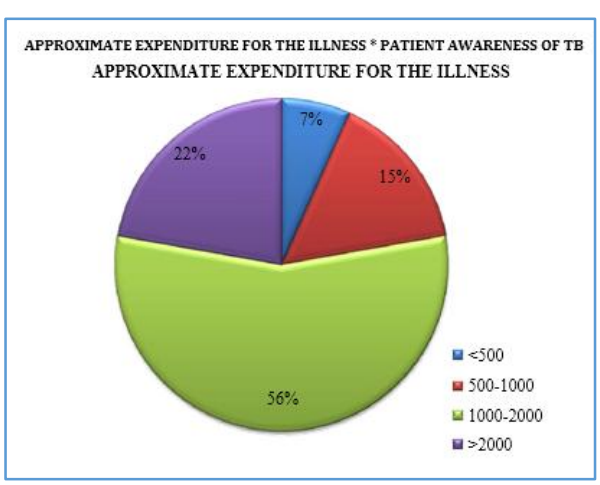


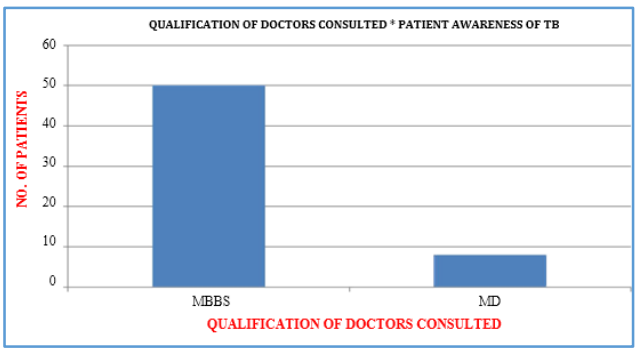












DISCUSSION

Studies conducted in India have shown that chest symptomatics in the community shop around seeking relief at various health facilities including private practitioners, before they are actually diagnosed as tuberculosis cases and put on appropriate treatment.[5] About half of the patients either purchased the medications over-the-counter, resorted to self-medication or went to traditional healers and such patients were found to have significantly longer patient delays. Patients who had family income below 3000 and who had poor knowledge about TB were more likely to have longer patient delays. Similar findings were reported in other studies conducted in India and elsewhere.[6,7,8] Identifying the sources of delay is a critical issue for an effective TB control. Furthermore, patient delays lead to increased spread of TB within the community.[9,10,11] Care seeking or patient delay is widely variable in literature, ranging from 4.9 to 162 days. In our study, patient delay was similar to that found by other authors in India,[12,13] Japan,[14] Hong Kong[15] and Spain. It was around 20 days. The main reason for patient delay among those who presented late to the health system involve financial, psychosocial and cultural characteristic of patient. One study recently reported that most patients treated for TB in a primary health clinic in a high TB incidence city in South East Brazil initially sought medical attention at an emergency room rather than the primary health care clinic as recommended by the public health system in Brazil. In our study, there were predominant male population [62.2%]. There was no significant delay pertaining to gender and awareness of TB. This is also supported from the literature review. However, in a few studies it was observed that gender factor was significant.[4] Amongst all the investigations considered in our study, majority of the patients had done chest x-ray [50.0%]. While they were symptomatic for more than 3 weeks, out of which 33.3% had done sputum analysis prior to consulting us. So this shows the awareness of sputum analysis amongst our population where imaging is given more importance than microbiological analysis.[3,6] Majority of the patients (84.4%) were aware of the facility for the management of TB.

CONCLUSION

From our study, we have inferred that the delay is multifactorial. The need of the hour is educating at all possible levels. It is not always the patient's factor that is reason for the delay, the delay happens because of the lack of awareness in the methodology of testing, both from the patient's side as well as from the doctors. Unless we disseminate the knowledge of diagnosing TB, we would not be able to prevent the dissemination of disease in the community and also the consequences which follows.

REFERENCES

[1] World Health Organization. Global tuberculosis report Geneva: World Health Organization Press 2014. WHO/HTM/TB/2014.08.

[2] Styblo K. Epidemiology of tuberculosis. 2nd edn. The Hague: Royal Netherlands Tuberculosis Association 1991.

[3] Frieden T. Toman's tuberculosis case detection, treatment and monitoring–questions and answers. World Health Organization, Geneva, 2004.

[4] World Health Organization regional office for Eastern Mediterranean. Diagnostic and treatment delay in tuberculosis. 2006. Avamro.who.int/dsaf/dsa710.pdf Accessed on 24 Sep 2012.

[5] Diagnosis and treatment delay in tuberculosis: an in depth analysis of the health of the health seeking behavior of patients and health system response in seven countries of the eastern Mediterranean Region. WHO 2006.

[6] Wandwalo ER, Morkve O. Delay in tuberculosis case-finding and treatment in Mwanza, Tanzania. Int J Tuberc Lung Dis 2000;4(2):133-8.

[7] Killewo J. Poverty, TB and HIV infection: a vicious cycle (Editorial). Journal of Health Population and Nutrition 2002;20(4):281-4.

[8] Abebe G, Deribew A, Apers L, et al. Knowledge, health seeking behavior and perceived stigma towards tuberculosis among tuberculosis suspects in a rural community in Southwest Ethiopia. PLoS One 2010;5(10):e13339.

[9] Hinderaker SG, Madland S, Ullenes M, et al. Treatment delay among tuberculosis patients in Tanzania: data from FIDELIS Initiative. BMC Public Health 2011;(11):306.

[10] Zhang T, Liu X, Bromley H, et al. Perceptions of tuberculosis and health seeking behavior in rural Inner Mongolia, China. Elsevier Health Policy 2007;81(2-3):155-65.

[11] Qureshi SA, Morkve O, Mustafa T. Patient and health system delays: health-care seeking behavior among pulmonary tuberculosis patients in Pakistan. Journal of Pakistan Medical Association 2008;58(6):318-21.

[12] Noubom M, Nembot FD, Donfack H, et al. Tchasse T: Caracterisitiques des pa-tients tuberculeux à l'ouest cameroun: 2000-2009. Pan Afr Med J 2013;16:39.

[13] Irani L, Kabalimu TK, Kasesela S. Knowledge and healthcare seeking behaviour of pulmonary tuberculosis patients attending Ilala District hospital, Tanzania. Tanzania Health Research Bulletin 2007;9(3):169-73.

[14] Oladayo B, Saheed G, Ajibola A, et al. Knowledge, care-seeking behaviour and factors associated with patient delay among newly-diagnosed pulmonary tuberculosis patients, Federal Capital Territory, Nigeria, 2010. Pan Afr Med J 2014;18(Suppl 1):6.

[15] Okeibunor JC, Onyeneho NG, Chukwu JN, et al. Where do tuberculosis patients go for treat-ment before reporting to DOTS clinics in southern Nigeria? Tanzania Health Research Bulletin 2007;9(2):94-101.