TO ASSESS THE ADVERSE EFFECT PROFILE OF SECOND LINE DRUG IN MDR TB PATIENTS

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Article Info: Received 10 June 2020; Accepted 15 July 2020

DOI: <https://doi.org/10.32553/ijmbs.v4i7.1303>

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Conflict of interest: No conflict of interest.

Abstract

Method: Study including LPA /AFB CULTURE proven cases of MDR TB. Data will be collected from the patient attending the OPD & IPD in the Dept. of Respiratory Medicine.

Result: Out of 200 patients 71% were of male its shows that MDR T.B. more prevalent among males and female 29%. Out of 200 patients most of the patients come under 10-15 Kg/m² BMI, so its shows that 64.5% patients comes it and disease more prevalent among under nutrition. Out of 200 patients, the present study shows that gastrointestinal side effects are the most common 42%. 09 patients have renal toxicity and 08 patients have Arthralgia and 06 patients have cutaneous reactions and 11 patients developed hepatitis and 07 patients have some psychiatric illness and 07 patients developed hearing defect.

Conclusion: The present study shows that gastrointestinal side effects are the most common 42%. 09 patients have renal toxicity and 08 patients have Arthralgia and 06 patients have cutaneous reactions and 11 patients developed hepatitis and 07 patients have some psychiatric illness and 07 patients developed hearing defect. Overall, these findings emphasize the importance of continuing the systematic surveillance of M. tuberculosis isolates to monitor the trends of drug resistance in different patient categories.

Keywords: Adverse, Second line & MDR TB.

Introduction

The emergence of resistance to drugs used to treat tuberculosis (TB), and particularly multidrug-resistant TB (MDR-TB), has become a significant public health problem in a number of countries and an obstacle to effective TB control. In India, the available information from the several drug resistance surveillance studies conducted in the past suggest that the rate of MDR-TB is relatively low in India^[1]. However this translates into a large absolute number of cases and as yet the management of patients with MDR-TB is inadequate. Specific measures are being taken within the Revised National Tuberculosis Control Program (RNTCP) to address the MDR-TB problem through appropriate management of patients and strategies to prevent the propagation and dissemination of MDRTB^[2].

The term "Programmatic Management of Drug Resistant TB" (PMDT) (erstwhile DOTS Plus), refers to program based MDR-TB diagnosis, management and treatment. These guidelines promote full integration of basic TB control and PMDT activities under the RNTCP, so that patients with TB are evaluated for drug-resistance and placed on the appropriate treatment regimen and properly managed from the outset of treatment, or as early as possible^[3]. These guidelines also integrate the identification and treatment of more severe forms of drug resistance, such as extensively drug resistant TB. Finally, the guideline introduces new standards for registering, monitoring and

reporting outcomes of multidrug-resistant TB cases. This uniform information management system will allow systematic, consistent data collection and analysis which will facilitate appropriate supervision and monitoring of the PMDT activities and will play an important role in shaping future policies and recommendations^[4].

Material & Method

This study will be done in the Dept. of Respiratory Medicine MGM Medical College & M.Y. Hospital, Indore from 01 Jan 2020 to 30 June 2020, a prospective study including LPA /AFB CULTURE proven cases of MDR TB. Data will be collected from the patient attending the OPD & IPD in the Dept. of Respiratory Medicine.

Study includes 200 patients of MDR T.B. In all of them, their case history was reviewed and analyzed, all clinical profile and laboratory reports were co-related:

Inclusion Criteria

1. Patient must be drug resistance case of TB of dist. Indore.
2. Co morbid condition such as HTN, DM, IHD, liver failure, renal failure etc will be included.

Exclusion Criteria

1. Drug sensitive TB patient.
2. Non tubercular patient.

Results

Table 1: Showing Patients according to SEX

Sex	Frequency	Percent	Percent	Cumulative Percent
Male	142	71	71	71
Female	58	29	29	29
Total	200	100.0	100.0	

Out of 200 patients 71% were of male its shows that MDR T.B. more prevalent among males and female 29%.

Table 2: Showing Patients according to BMI (Kg/m2)

BMI (Kg/m2)	Frequency	Percent	Percent	Cumulative Percent
10-15	129	64.5	64.5	64.5
15-20	56	28	28	28
20-25	11	5.5	5.5	5.5
>25	4	02	02	02
Total	200	100.0	100.0	

Out of 200 patients most of the patients come under 10-15 Kg/m2 BMI, so its shows that 64.5% patients comes it and disease more prevalent among under nutrition.

Table 3: Showing Patients according to ADVERSE EFFECT

Adverse Effect	Frequency	Percent	Valid Percent	Cumulative Percent
Gastrointestinal	84	42	42	42
Renal Toxicity	09	4.5	4.5	4.5
Arthralgia	08	04	04	04
Cutaneous reactions	06	03	03	03
Hepatitis	11	5.5	5.5	5.5
Psychiatric illness	07	3.5	3.5	3.5
Auditory	07	3.5	3.5	3.5
No adverse effect	68	34	34	34
Total	200	100.0	100.0	

Out of 200 patients, the present study shows that Gastrointestinal side effects are the most common 42%. 09 patients have renal toxicity and 08 patients have Arthralgia and 06 patients have cutaneous reactions and 11 patients developed hepatitis and 07 patients have some psychiatric illness and 07 patients developed hearing defect.

Discussion

DOT worker, nurses in the hospital and clinician will monitor and record all the adverse events routinely and laboratory screening tests will be done on a routine basis as per the national guidelines. The initial evaluation serves to establish a baseline and may identify patients who are at increased risk for adverse effects or poor outcomes. Laboratory screening is invaluable for detecting certain adverse effects that are more occult, and before serious harm is done^[5]. Training of all the health staffs will be done to identify and manage ADRs. Close monitoring of patients is necessary to ensure that the adverse effects of the drugs are recognized quickly by health-care personnel. The ability to monitor patients for adverse effects daily is one

of the major advantages of DOT over self-administration of treatment. The majority of adverse effects are easy to recognize. Commonly, patients will volunteer that they are experiencing adverse effects. It is important to have a systematic method of patient monitoring since some patients may be reticent about reporting even severe adverse effects^[6].

DOT workers should be trained to screen patients regularly for symptoms of common adverse effects: rashes, toxic epidermal necrolysis, gastrointestinal symptoms (nausea, vomiting, diarrhoea), psychiatric symptoms (psychosis, depression, anxiety) jaundice, ototoxicity, peripheral neuropathy, symptoms of electrolyte wasting (muscle cramping, palpitations), and convulsions^[7]. DOT workers should also be trained to identify ADRs and refer the patient to the MO PHI for minor ADRs and to the DTO for major ADRs. Most of the ADRs could be managed by the DTO/chest physician of the district hospital. If required, hospitalization could be done at the districts where inpatient facility is available or referred to a referral hospital for admission. The DR-. Depending on the severity of ADRs the following actions may be indicated: If the adverse effect is mild and not serious, continuing the treatment regimen, with the help of ancillary drugs if needed, is often the best option. Most of the adverse effects of a number of second-line drugs are dose-dependent. Reducing the dosage of the offending drug or terminating the offending drug is another method of managing adverse effects^[8].

Psychosocial support is an important component of the management of adverse effects^[9]. This may be provided through patient education and motivation by DOT workers, patient support groups like patients' association/organization or through group discussions while in the hospital. The recommended schedule for ADR management is detailed in the below.

Conclusion

The present study shows that Gastrointestinal side effects are the most common 42%. 09 patients have renal toxicity and 08 patients have Arthralgia and 06 patients have cutaneous reactions and 11 patients developed hepatitis and 07 patients have some psychiatric illness and 07 patients developed hearing defect.

Overall, these findings emphasize the importance of continuing the systematic surveillance of M. tuberculosis isolates to monitor the trends of drug resistance in different patient categories.

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