THE RISK OF GETTING ANTI-TUBERCULOSIS DRUGS AS OVER THE COUNTER DRUGS

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Abstract:

Background: Tuberculosis control efforts are often ineffective in controlling tuberculosis among patients who use illicit drugs[1]. The occurrence of multidrug-resistant tuberculosis is increasing in many parts of the world. Resistance of *Mycobacterium tuberculosis (M. Tuberculosis)* to Anti-tuberculosis drugs is man-made. In Egypt, private pharmacies constitute an important part of the private healthcare sector where some Anti-tuberculosis drugs dispensed without prescriptions. With such malpractice emergence of serious types of *M. tuberculosis*-resistant strains is highly likely to occur.

Methods: Surveys of a random sample of 78 pharmacies in Alexandria and Behira for Anti-tuberculosis drugs were included in our study. These pharmacies were divided into hospital pharmacies, pharmacies in rural areas and pharmacies in urban areas. Questionnaires were given to these pharmacies, and interviews were carried out based on a structured questionnaire.

Results: It was found that 90.8% of the pharmacies enrolled in this study hold in their inventoryAnti-tuberculosis drugs; however, 77% of them dispense these drugs without prescription, while 15.4% advice the patient about their risks. Nevertheless, 20% only ask the patient why they take these drugs

Conclusion: Awareness to patient taking Anti-tuberculosis drugs about their risk is of paramount importance, meanwhile; awareness to pharmacists dispensing these drugs about their risk. Imposing a penalty on pharmacists dispensing Anti-tuberculosis drugs without prescription. Limiting the dispensing of these drugs to hospitals curing tuberculosis . encouraging pharmacists to counsel the patient asking for these drugs, are all viable options.

Introduction

Tuberculosis is an important reemerging disease with increasing global morbidity and mortality [2]. The occurrence of multidrug-resistant tuberculosis is increasing in many parts of the world. Resistance of *Mycobacterium tuberculosis* to Anti-tuberculosis drugs is man-made. Wild isolates of *M. tuberculosis* that have never been exposed to Anti-tuberculosis drugs are virtually never clinically resistant. The patient then develops acquired resistance. Subsequent transmission of such bacilli to other persons may lead to disease that is drug-resistant from the outset, an occurrence known as primary resistance [3]. The emergence of drug-resistant *M. tuberculosis* has been associated with a variety of factors related to management, health providers and patients [4]. In Egypt, private pharmacies constitute an important part of the private healthcare sector where some Anti-tuberculosis drugs are dispensed without prescriptions. This can lead to serious types of *M. tuberculosis*- resistant strains. The objectives of this study are to search for Anti-tuberculosis drugs that can be dispensed without prescriptions and their rate of dispensing in hospital and community pharmacies. In order to find a strategy or a plan to control their dispensing.

Methods

Pharmacies were selected on random bases from crowded areas in Alexandria and Behira.
Surveys of a random sample of these 78 pharmacies for Anti-tuberculosis drugs were included in our study. These pharmacies were divided into hospital pharmacies, pharmacies in rural areas and pharmacies in urban areas. Questionnaires were given to these pharmacies and interviews were carried out based on a structured questionnaire
The study examines both the public sector and the private sector. A questionnaire was given to the pharmacist to ask about the Anti-tuberculosis drugs that were found at the pharmacy and its rate of dispensing**.**
The questionnaire inquires mainly data about the anti-tuberculosis drugs that were found in each pharmacy, its rate of dispensing, and whether the pharmacist advice the patient about their risk and ask him why he is taking them.

Results

It was found that 71 Pharmacies (90.8%) of the pharmacies enrolled in this study contain at least one of the Anti-tuberculosis drugs. The anti-tuberculosis Drug Rimactazide (Rifampicin+ Isoniazide), Rimactain (Rifampicin 300mg), P.T.B (Pyrazinamid 500mg), and Etibi (Ethambutol 100mg and 400mg) were dispensed in most pharmacies, Rimactain dispensing is more than the others, however Etibi and P.T.B were the least to be dispensed. The following chart shows the percentage of dispensing each drug to the whole drugs used for Tuberculosis treatment Figure 1.

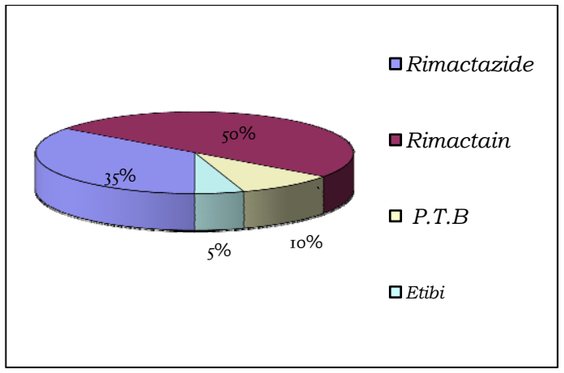

Figure1: Shows the rate of dispensing each drug used to treat Tuberculosis in comparison to the other.

They are all used mainly for Tuberculosis treatment only Rimactain was used for other purposes the Figure 2 represents the rate of dispensing the these drugs to treat Tuberculosis and the rate of dispensing them to treat other condition rather than Tuberculosis.

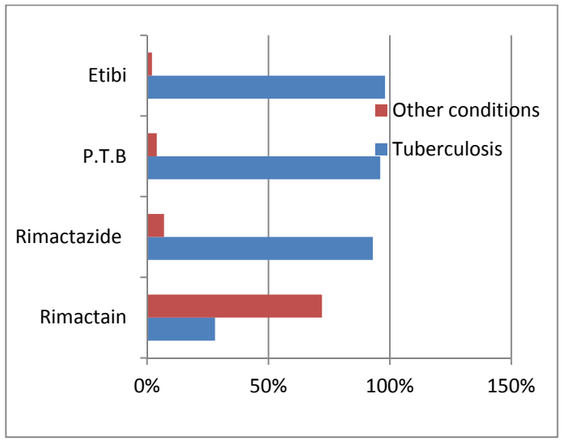

Figure 2: Represents the rate of dispensing of each drug for Tuberculosis treatment versus other medical conditions.

Out of the 78 pharmacies enrolled in this study we found that 60 pharmacies (77%) of them dispense these drugs without prescription, while 12 Pharmacies (15.4%) advice the patient about their risks. Nevertheless, 16 pharmacies (20.5%) only ask the patient why they take these drugs.

Conclusion

The study explores the dispensing of Anti-tuberculosis medicines in an environment where restriction of antimicrobial drug dispensing does not apply. Awareness to patient taking Anti-tuberculosis drugs about their risk is of paramount importance, meanwhile awareness to pharmacists dispensing these drugs about their risk. Impose a penalty on pharmacists who dispense Anti-tuberculosis drugs without prescription. Limit the dispensing of these drugs to hospitals curing tuberculosis. Encourage pharmacists to counsel the patient asking for these drugs.

A large number of tuberculosis patients are still approaching private pharmacies for anti-tuberculosis drugs. This tendency has to be completely stopped and needs properly planned strategies to encourage private pharmacies to participate actively in the DOTS (Direct Observation Treatment Short course) program of the Government, by providing them attractive alternative incentives.

References

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