



Research Article

Profile of Resistance in the Retreatment Cases of Tubercu- losis: Microbiological Aspects

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Abstract

Emergence of Drug resistance is a nightmare for tuberculosis control programs and complex health care system in particular. Here we observe a strong link between drug resistance and a history of TB treatment.

The aim of present study is to describe the resistance profile among retreatment cases of tuberculosis in here comes the city or country.

Methodology

We conducted a retrospective survey on the analysis of records of patients starting tuberculosis retreatment for failure or relapse of tuberculosis. We used 193 records with culture results and drug susceptibility testing.

Results

The proportion of failure is 59/193 (30.6% and the cases of relapse is 134/193 (69.4%) in our study). The proportion of married life is 23.4% (11/47) in failure against 41.5% (51/123) in relapse of tuberculosis [p = 0,021, OR = 0,431 (0,201-0,927)]. Patients failing therapy have more chest pain [5, 8% (3/52) versus 0% (0/126) avec p = 0,024]. The proportion of MDR-TB is 61.4 (38/59) on failure against 41% (55/134) in case of relapse [p = 0.002, OR = 2.599(1.378 to 4.902)].

Conclusion

The proportion of the resistance is very important in retreatment cases. But most patients who have failed to TB.

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Introduction

Drug resistance and especially the emergence of Multi-Drug Resistant Tuberculosis (MDR-TB) has become a global major public health problem. It thus impedes the effectiveness of measures for TB control strategies both globally and in Côte d'Ivoire. The rapid increase in multi-drug resistant tuberculosis which is defined as *Mycobacterium tuberculosis* resistant to atleast isoniazid and rifampicin (both most effective antituberculosis drugs) with or without resistance to other first-line drugs [1,2], is the direct result of poor management of tuberculosis sensitive bacillus [3] failure by the patient of the risks of an out break of multi-resistant strain, or non-application of the technique of supervised treatment in patients at high risk of nonadherence [4]. The economic and social burden of this deadly disease is already evident. Treating a case of MDR-TB is more expensive, also more toxic to the patient [3] creating a load for both the patient and the health care system especially in developing countries. Retreatment cases are recognized as those patients who have already completed one or more anti-tuberculosis treatment for more than a month [5]. While resistance in these retreatment cases is observed in cultures and drug susceptibility assays. We observe a strong link between drug resistance and previously TB treatment [1,6]. In many countries, experience has shown that patients with active MDR-TB strains in their sputum can infect large numbers of people with HIV, rapidly causing outbreaks of MDR-TB with a high mortality rate [7,8]. It is therefore imperative to diagnose and support an early stage this particular form of tuberculosis to prevent the occurrence of a deadlock therapeutic. In this perspective, the objective of our study is to describe the resistance profile during retreatment TB to optimize prevention.

Methodology

Part of the study

The fight against tuberculosis is organized by the national fight against tuberculosis (PNLT) in Côte d'Ivoire through a technical guide [9]. The national technical guide contains recommendations and definitions that enable the organization monitoring and evaluation of the fight against tuberculosis in Ivory coast. Management tools in the fight are essentially laboratory records for TB microscopy, registry case report, the file of TB patients, and the treatment card of TB patients. This guide follows the definitions of (World Health Organization) (WHO) and International Union against Tuberculosis and Lung Disease (The UNION) [9,10].

PTB+: Pulmonary Tuberculosis Smear Positive

Retreatment cases include different situations

Relapse patients: Are previously treated for TB, were declared cured or treatment completed at the end of their most recent treatment episode and are now diagnosed with a recurrent episode of TB (either a true relapse or a new episode of TB caused by reinfection). "Companion handbook to the 2011 WHO Guidelines for the Programmatic Management of Drug resistant Tuberculosis"