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Editorial

Diagnostic and Therapeutic Strategies of Pulmonary Tuberculosis in HIV-Infected Patients in Antiretroviral Therapy Era

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Editorial

Pulmonary Tuberculosis (TB) is one of the most common opportunistic infections in patients diagnosed with HIV/AIDS.

The data published in literature shows that 11 million adults with HIV/AIDS are co-infected with Mycobacterium tuberculosis, of which 71% in Sub-Saharan Africa and 22% in Southeast Asia. Tuberculosis kills about 350,000 patients with HIV infection each year, placing them first in the causes of death of these patients according to data from the United Nations AIDS [1,2].

A third of world population is infected with M. tuberculosis, and annually there are around 10 million new cases of tuberculosis and 2 million deaths, making tuberculosis the second-leading cause of infectious death worldwide. Worldwide, there is a re-emergence of disease, mainly because of a demographic explosion, the deteriorating health of the population in many parts of the world, increasing numbers of homeless and increase the number of immigrants from countries where tuberculosis is endemic. Additionally, contribute the HIV/AIDS pandemic, considered the most potent risk factor of tuberculosis and the emergence tubercle bacilli resistant to tuberculostatic [2-4].

HIV infection creates the largest reservoir of immune compromised increased susceptibility to tuberculosis. Advanced stages of immunodeficiency induced by HIV infection induce in an exacerbation of infection with M. tuberculosis, as well as an increased risk of developing active disease in people double-infected with HIV and M. tuberculosis. The risk of TB in this population is about 30%. TB is a problem even in HIV-infected patients under antiretroviral treatment [3,5,6].

Tuberculosis can affect the natural history of HIV infection by activating macrophages infected with HIV resulting in an exaggerated cellular immune response of the host body, being involved in this response a large number of lymphocytes and macrophages secrete large quantities of limfokine. In this manner, TB accelerates the progression to end-stage HIV-AIDS. Progression to AIDS occurs a rather positive tuberculin test among people treated with HIN, than among those treated with HIN, even when tuberculosis was excluded as an indicator of AIDS [7,8].

In immune competent patients, primo infection with M. tuberculosis is benign, with a self-limited evolution, spontaneous regression without treatment, while HIV-positive, without treatment, primo infection tends to dissemination and fatal marrow [6,9]. All this suggests that treatment of latent tuberculosis infection helps keep the immune status in HIV-positive patients.

HIV epidemic has increased the risk of active TB in HIV-positive, and the risk of latent TB. Emergence of multidrug-resistant tuberculosis alongside are two major factors, responsible for the resurgence of TB in recent decades [8,10].

Symptoms of TB in people infected with HIV are generally nonspecific. Signs and symptoms (fever, weight loss, and fatigue) can be caused by TB and other atypical mycobacterial infections (lymphoma, AIDS-Wasting syndrome, CMV infection, etc.).

The literature indicates that patients with HIV infection and pulmonary TB may have atypical radiological changes: lobar infiltrates with or without hilar adenopathy, diffuse infiltrates resembling an interstitial model of Pneumocystis jirovecii. Some patients with HIV infection and TB with a positive sputum smear microscope examination have normal chest X-ray (0-20%). Cavitary tuberculosis is rare in these patients, reflecting an immune dysfunction, general patients with advanced HIV infection [9,10].

The scientific claims are associated with a reduced number of new patients detected with radiological changes: lymph nodes, nodular-infiltrative changes and lymph nodes associated with infiltrative, nodular changes.

Special attention will be given to patients with HIV/AIDS who have a history of TB pulmonary or extra pulmonary land under immune suppressed because of HIV, they risk re-infection or relapse high will be identified early, properly monitored and effectively treated.

It is recommended that patients with HIV infection and TB history to be controlled and monitored clinical and biological through effective collaboration between infectious disease specialists and pneumology because of the danger of possible outbreaks of infectious reactivation.

Medical practice often proves emergence TB in patients with HIV/AIDS confirmed by a positive blood cultures BK medium F-Lytic associated with hematogenic dissemination and severe clinical course. Therefore we suggest using this procedure whenever

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these patients present a febrile syndrome and train yet unspecified etiology.

Due to the high frequency of detected patients with chronic hepatitis (HBV/HCV), if the decision to establish TB treatment is recommended prior investigation of liver function, knowing antituberculosis therapy hepatotoxicity.

If tuberculosis with sensitive germs the things is in a clear and steady progress in Multidrug-Resistant Tuberculosis (MDR) and Extremely-Resistant (XDR), the situation is significantly different.

Extensively Resistant Tuberculosis (XDR-TB) infection is resistant not only to isoniazid and rifampicin, but also drug of second-class treatment, such as amikacin, kanamycin or preomicina, is much harder to treat and more dangerous than TB-MDR [11]. Extensive resistance to treatment occurs in approximately 9% of cases of MDR-TB.

The prevalence of treatment-resistant tuberculosis is increasing globally. Resistant infection is transmitted in the same ways as the sensitive treatment by air from person to person. OMS estimates that 5% of all TB cases are MDR that is resistant to isoniazid and rifampicin. This percentage translates into 480 000 cases and 190 000 deaths annually.

Because of side effects and pelungite treatment period, most patients with pulmonary TB stop taking prescribed medication. This is the main reason why the incidence of MDR-TB is increasing at present. Therefore, to make another step towards meeting targets to reduce the incidence of TB by 80% and deaths from TB by 90% by 2030, OMS recommends the widespread use schemes shorter treatment duration 9-12 months. They proved beneficial after Médecins Sans Frontières (MSF) began implementation in 2013 in Uzbekistan and then in Swaziland [12].

Quick treatment scheme eliminates the long-term treatment failures start, hard to follow patients. Because of the side effects of therapy, many patients discontinue conventional treatment, which can last from 18 to 24 months, and do not they return to regular checks. This behaviour leads to increased mortality rate of a disease treatable and curable disease affects the entire population, by increasing resistance to conventional therapy and selecting infection of bacteria even insensitive to drugs of second grade. Therefore OMS recommended regimens lasting between nine and 12 months, while having a much lower cost and fewer side effects.

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