

Changes in the tuberculosis profile in Brazil: a new reality?

Mudanças no perfil da tuberculose no país: uma nova realidade?

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From the standpoint of knowledge, the passage of time, or, euphemistically, senescence, causes us some annoyance. There are physical limitations, degenerative diseases, short-term memory loss, and other infirmities, as well as, for those of us who are more vain, the torture of finding that our hair is graying or thinning,.

However, the passage of time has a series of advantages, such as accumulated experience, greater maturity, a greater understanding of ideas, interaction with competent mentors, and, especially, if we continue to study, a historical overview of phenomena, of what is true and what is false, as well as of what has been overcome by persistent and continued advances in science. This has been my experience with tuberculosis, an endemic disease that I have been studying and fighting for approximately 40 years.

These observations constitute a necessary introduction to my commentary on the article authored by Silva et al.⁽¹⁾ and published in the current issue of the Brazilian Journal of Pulmonology.

I have interacted with professionals from a time when there was no curative treatment for tuberculosis, when patients were isolated in sanatoriums, a period in which only mutilative surgical interventions (collapse therapy and pulmonary resection) were available. I have seen chemotherapy and BCG vaccination take their first steps, as well as the emergence of more potent drugs and combinations of drugs against *Mycobacterium tuberculosis*.⁽²⁾

My initiation was the dispute between clinicians and epidemiologists regarding the setting of priorities in selecting the strategies employed in the Tuberculosis Control Program and in allocating its resources. I soon embraced the idea that we should take the fight against tuberculosis to the peripheral activities of health care, since interventions should be horizontal, this battle being linked to the hierarchization of practices.⁽³⁾ I took an eclectic and conciliatory position, proposing the harmonious interaction of those specialists, in the belief that the coalition would be beneficial to the control of the epidemic.

I have learned from Milton Fontes Magarão that the diversity of tuberculosis worldwide is due to “factors of various natures, such as socioeconomic status and dietary habits or restrictions, as well as environmental influences yet to be elucidated regarding mycobacteria and their changes in behavior in different geographic regions or ecological systems (...).”⁽⁴⁾

Finally, I have witnessed the symbiotic and deleterious interaction between endemic tuberculosis and the HIV/AIDS pandemic, the reemergence of tuberculosis in first world countries, and the persistence of high rates of tuberculosis in poor countries. I have realized that, between these extremes, there is an intermediate group of countries, such as Brazil, where the burden of tuberculosis remains high, although its prevalence is low, and the disease has consistently regressed in recent decades, as proposed by Caminero Luna.⁽⁵⁾

However, there have been a series of radical and rigid views expressed on both sides: the almost exclusive treatment of disseminators of the bacillus, that is, of patients with positive sputum samples; the clamor for a return to the strategy of patients with tuberculosis being treated by pulmonologists; the debate between smear microscopy and radiology; and many others. It is known that patients testing negative on direct sputum smear microscopy and positive on culture are also transmitters, especially to contacts with low immunity. There are those, especially women, who have difficulty in expectorating.

Simple, objective, and well-developed technical norms⁽⁶⁾ can be applied by primary care clinicians working together with multidisciplinary teams who are constantly keeping their knowledge up-to-date.

I have observed a progressive change in the tuberculosis profile in Brazil, as well as the decline of the disease, in recent decades, as portrayed in historical studies, such as a review of the 1980s,⁽⁷⁾ as well as a review covering the 1990s and the beginning of the current decade,⁽⁸⁾ monitoring the decrease in mortality and the evolution of tuberculosis at the state level.

Although the HIV/AIDS pandemic has caused terrible harm, it provided a challenge to science, as well as to health researchers and planners. The advances resulting from the need to combat this viral infection have been and continue to be a source of inspiration for tremendous further advances. However, in terms of the risk of developing tuberculosis, HIV-infected individuals are not exactly unique, since there are other immunocompromised individuals who are also at varying degrees of risk. I believe that this is the basic merit of the aforementioned article, which draws attention to cases of other diseases and situations of reduced immunity other than HIV infection: being elderly; having diabetes, cancer, or leukosis; and using immunosuppressants.

The study clearly indicates that the current level of peripheral and primary care is insufficient. It is necessary to allocate specialists to secondary and tertiary referral centers, such as hospitals for the treatment of cases of greater complexity, relying on evidence-based consensus and guidelines established by specialized societies.⁽⁹⁾

The aforementioned facts raise additional issues, including the need to train groups of technicians with clinical experience and the need for institutions that have advanced laboratory resources and employ genetic and proteomic methodologies, which can elucidate the immunopathogenesis of the disease and evaluate the immune response of the individual, as well as being able to determine the susceptibility of contacts and the virulence and transmissibility of the pathogen. It is commendable that disease study networks and groups, involving professionals from various specialties, have been formed and that efforts to promote the interaction between health care facilities and universities has been made. Finally, tuberculosis places the training of professionals working in tertiary care facilities—hospitals, specialized emergency rooms, and specialized clinical support services—on the agenda of control programs, making such professionals more proficient in the investigation of tuberculosis.

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