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Challenges and progress in the fight against tuberculosis in Peru: an updated perspective

Tuberculosis (TB) continues to be a major public health challenge in Peru, one of the 30 countries with high burden of TB in the world according to the World Health Organization (WHO) (1). In 2022, an estimate of 25,657 new of TB cases and more than 4000 deaths from the disease were reported in our country. This numbers highlight the need to take effective control measures for TB in the territory.

In spite of the global efforts to combat it, TB endures as one of the deadliest infectious diseases worldwide (2) and represents one of the ten leading death causes in the world (and the leading death cause produced by a single infectious agent) (3). For this reason, the Pan American Health Organization (PAHO) calls upon the countries to increase the investment on services related to the care of this public health problem in a post-pandemic context, which reports a setback with respect to the success achieved with the End TB [*Fin de la TB*] Strategy (2).

The complex multiplicity of factors involved explains that this disease is linked to groups with high vulnerability, such as populations in extreme poverty and overcrowding, or deprived of freedom (4); those who have immune system disorders, such as HIV and diabetes (5,6), as well as indigenous populations (4).

Peru is the second country with the highest number of estimated cases in America and is among the countries with highest burden of resistant TB worldwide (7). The latter, as well as the barriers that limit access to health services for patients suffering from this disease (8), and stigmatization that they suffer are factors that explain the rates of low adherence to treatment or relapses (9).

In this regard, the most recent reports from the Tuberculosis Management Information System (SIGTB) by the Ministry of Health (MINSA) for the 2018-2021 period indicate that the regions with the highest risk of TB in 2021 were Cusco, in the highlands; Lima, in the central coast; Tumbes, in the northern coast, and the entire Peruvian Amazon region. Regarding the new cases, after a slight increase between 2018 and 2019, a significant decrease



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of this figure in 2020 had been achieved, but further increase was reported in 2021. In the case of relapses, there was a sustained decrease in cases between 2018 and 2020, but a new increase was experienced in 2021.

On the other hand, readmissions cases due to loss to follow-up do show a consistent decrease in the 2018-2021 period, as opposed to readmissions due to treatment failure, which increased in 2020 and 2021, relative to the much lower figures (almost half) in 2018 and 2019. Therefore, it is urgent to implement health policies that favor the adherence of TB patients to treatment, as well as an optimum management to eliminate the negative association between stigma against patients and the level of knowledge about the disease, family functionality and communication with the physician (9).

Always according to MINSA figures, TB predominates in the male population of the country, with a constant percentage figure of 65% between 2018 and 2021, compared to 35% recorded for the female population in the same period. In terms of age groups, adults (42%) and young people (33%) are the most affected in the mentioned period.

Likewise, when examining the incidence of TB in special populations, the MINSA report indicates a predominance of cases in EsSalud personnel compared to MINSA personnel and other institutions, as well as a reduction in the number of TB cases in the prison population, in the context of the pandemic.

One of the main challenges TB control faces in Peru is the lack of access to health care services, especially in rural areas (10, 11). Many people living in these areas do not have access to basic health care services, much less TB treatment. In addition, there is a lack of awareness and education on TB among the general population, which contributes to the spread of the disease (11).

To combat these challenges, several steps can be taken. First, greater investment in health care

infrastructure is needed, especially in rural areas. This must include the construction of new clinics and the hiring of more health professionals, as well as the provision of necessary medical supplies and equipment (12).

Second, a better focus on education and awareness campaigns on TB is needed. This must include information on the symptoms of TB, how it is spread, and how to prevent it. These campaigns must target both health professionals and the general public to ensure that everyone is aware of the dangers of TB and how to prevent its spread (13).

Third, an increased focus on TB diagnosis and treatment is needed. This includes the implementation of more effective screening and testing methods, as well as the provision of better quality and more affordable anti-TB medicine (8, 9). Greater emphasis must also be placed on patient follow-up and monitoring to ensure that patients complete their course of treatment and do not develop drug-resistant strains (9).

Finally, greater collaboration between government agencies, health professionals, and civil society organizations is needed to address the TB epidemic in Peru. This must include the sharing of information, resources, and expertise to ensure that all stakeholders are working toward a common goal (1, 4).

Initiatives such as the commemoration of World Tuberculosis Day seek to raise awareness among the population of the countries of the different consequences caused by this disease and, as mentioned at the beginning, of the urgency to address unlimited efforts to increase the number of diagnostic tests and strengthen the treatment established by the World Health Organization (WHO). The COVID-19 pandemic has been a hard blow due to its sequelae in the respiratory system of the most affected patients, thus it is necessary to design more aggressive strategies to recover the lost ground.

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