

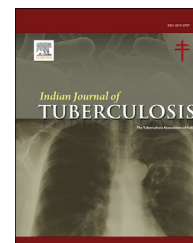


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Editorial

COVID 19 and tuberculosis

On 31st December 2019, cases of pneumonia with unknown etiology were reported from Wuhan City of China to the WHO China Country Office. It marked the beginning of something terrifying that made the entire world to pause. Within a span of a week, i.e. by 7th January 2020, the causative agent of exponentially increasing pneumonia cases was identified as a new type of corona virus called SARS-CoV-2. Though the virus was found to be genetically related to the corona virus responsible for the SARS outbreak of 2003, the two virus are still different and on 11th February 2020 WHO gave the name COVID-19 (COrona VIRUS Diagnosed in 2019) to the disease caused by it.¹ In the blink of an eye, the novel corona virus disease became so wide spread that WHO announced it as a Pandemic on 11th March 2020 and caused 5,593,631 confirmed and 353,334 deaths being reported globally, based on information received from national authorities by 10:00 AM CEST, 28th May 2020.²

Till date the virus has infected a total of 158,333³ persons in India among 3,362,136⁴ samples tested so far (positivity 4.7%), with 4706³ deaths so far as per ICMR & MoHFW, India as on 29th May 2020 9:00 AM IST. But, is it the only epidemic that is harbouring our world these days? Are we not forgetting the leading infectious cause of death in the world, Tuberculosis (TB). Meanwhile, all this COVID fiesta, TB is giving rise to an estimated 2.5 million new cases every year and causing 3.75 lakh death deaths, globally.⁵ India alone accounts for 6.25 lakh new cases and nearly one lakh deaths annually (mortality rate 20%), leading the way here as well.⁶ The picture gets worsened by the increasing number of drug resistant cases which in turn is taking the mortality rate to higher levels. Why are we so oblivious to one disease which is equally devastating and distinctive towards the other?

After China and Italy, world is looking over India in apprehension to win this war against the deadly virus. World is fighting this disease with its every might. What's not being done to curtail the devil? From strong politico-administrative commitment to inter-departmental (even inter-governmental at such times) coordination, from spate of advisories and public addresses to overflowing awareness drives on social media, from every possible preventive measure viz. educating about cough etiquettes, tracking down and isolating all suspected cases and contacts of confirmed cases and propagating awareness through every possible means, from prioritizing

health care delivery services to stringent infection control measures at all levels, countrywide lockdown, unparalleled mobilization of resources, essential goods and management of human resources and what not. All is being planned and implemented in quickest possible time frame and guidelines being revised with updated data every short interval. That's impressive and imperative.

Can we compare our efforts to mitigate another epidemic prevailing in the country since decades? Celebrating yet another World TB day this 24th March 2020, did we even think of showing at least half of this commitment to save the lives lost due to lack of awareness or lack of required level commitment for the same. If we have to learn one thing from China then it can be the way it is curtailing its health issues one by one. First the population explosion, then nearly halved its TB prevalence in 20 years⁷ by reducing the incidence of TB to a rate of 3–5% per year (1–2% per year global),⁵ and now curbing the spread of most aggressive, agile and ambitious disease i.e. COVID-19 even. It is getting praises all over the world for its 'bold approach' necessitating strict social distancing, more than a month of city-wide lockdowns of the first affected city (Wuhan) and surrounding areas, extensive public monitoring of citizens, as well as various methods of punishment and rewards to encourage adherence to such measures.⁸ When it has been established that single most effective contributing factor in this was "aggressive use of quarantines", similar strategies can go a long way to contain the spread of *mycobacterium tuberculosis* as well. With the ever growing multi drug resistant bacteria, it has become the need of the hour to start focusing on TB as well and take uncompromising relentless measures if to achieve the country's vision to eliminate TB by 2025. We can take learnings from everywhere if we really want to take it. The Chinese 10 year Infectious and Endemic Disease Control (IEDC) project 1991–2000 demonstrated that DOTS can be rapidly expanded provided that two critical elements are achieved viz. strong politico-administrative commitment and implementation of specific guidelines for TB control with rapid dissemination of generalized awareness, helping WHO to launch DOTS worldwide.⁹

Among the most commonly reported symptoms due to COVID-19 are fever, dry cough and shortness of breath whereas the most patients (80%) reported mild illness only

with elder age group people and those having underlying comorbidities at a higher risk. According to the limited information available, SARS-CoV-2 probably interferes with the host innate immune response, induces delayed type I IFN compromising early viral control, leading to cytokine storm eventually. In time of the epidemic, it was observed that without isolation measures, one infected person could have infected 2.5 people in 5 days which in turn could infect 406 people over 30 days but with proper isolation & containment measures the transmission rate could be decreased to as low as 1.05.¹⁰ On the other hand, a person infected with TB has a lifetime risk of 5–15% of developing an active disease and an active TB patient could infect 10–15 people per year.⁵ There is a saying in TB community: “TB anywhere is TB everywhere.” Moreover, the list of vulnerable population for TB, which is way longer than that for COVID-19, includes immunocompromised individuals, People living with HIV, malnourished, diabetics, tobacco users, alcohol users, people other comorbid conditions, etc.

Two peculiar ways in which TB is showing us light at the end of the COVID-19 tunnel. Firstly, where we can see individuals with underlying disease like diabetes, hypertension and cardiovascular diseases, etc. are susceptible to CoVID-19 instead of young children with no evidences of developing severe cases as a result of highly effective innate immune response present.¹⁰ Taking the facts, researchers are trying to establish a relation between BCG vaccinations providing some level of immunity from the disease, e.g. Netherlands and US have been more severely affected compared to countries with universal and long standing BCG policies. Countries implementing long standing BCG mass vaccination programs observed lesser number of infections and deaths recorded due to CoVID-19. India with world's BCG vaccine proved quite effective against SARS infection also in reducing the intensity. Several studies over the years have stated that BCG vaccines can accentuate a powerful immune response but does it render any protection from CoVID-19? Secondly, extensive experience of investigating close contacts with TB patients could be used as a learning tool to propose a strategy for SARS-CoV-2 screening and contact tracing in settings with low levels of community transmissions.¹¹ Tracing the three generations of contacts and offering timely testing if previous contact generation is detected positive, with sentinel testing of patients with respiratory symptoms among general population should be conducted to rapidly identify the onset of sustained community transmissions and thereby deploying the available resources effectively.¹²

TB has been in India since 3300 years and despite delivering positive information like such in times of emergency, couldn't muster the respect it deserves. However, the only thing that touches the notch of the charts for TB is stigma associated with it, which renders the situation more challenging with delayed diagnosis. Even after years of ongoing battle, an ardent political administrative commitment and rapid policy response, as incredible as it is for COVID-19, remains awry for TB. Despite specific guidelines from NTEP and Standards of TB Care in India, private sector health care providers still fail to implement them in their day to day practice which worsens the situation increasing out of pocket expenditure leading to decreased adherence giving rise to consequent drug resistant

TB cases. People don't consider it necessary to follow basic simple cough etiquettes when it comes to TB, leave apart following isolation protocols.

As if the problems with TB control were not enough. The squall of coronavirus pandemic has rendered routine TB services to stand at the brink of diluted attention with diverted human resources. This may lead to a long term irreparable socio economic backlash. What we are fighting now, doesn't even have any specific treatment or any preventable vaccine in place yet. However, TB is a curable disease with anti-tubercular drugs and preventable with prompt diagnosis and early treatment of active TB cases, airborne infection control measures with proper cough etiquettes and treatment of latent TB infection. The preventive measures required for TB are not very much different from what is required for COVID-19.¹³ The enthusiastic and mandatory use of masks in the wake of COVID-19 is adding a preventive benefit towards TB spread as well. On the contrary, increased lockdown implementation and strict quarantine measures have decreased the access to timely diagnosis and prompt treatment uptake as well, a reason to worry again. A little bit of strengthening and expanding the existing programmatic capacity, fully accountable private sector and a politico administrative support to TB control and program implementation can give speed to this battle against havoc TB continues to cause in our country.

It is understandable the fear and misery COVID-19 is causing among the masses and definitely the stratagem adopted were entailing. But we must not underestimate the much more sufferings and deaths TB is causing every day. Just because one disease surfaces up and scares us more should not be an excuse to loosen our grips on the one which has been the reason of the blues for millions in the country and worldwide as well. The situation today is like a doomsday scenario and these emanating emergencies demand to be confronted together through coordinated global health measures. Keeping in mind the most important lesson learnt: 'Prevention is the key to success', we must repurpose our tools to fight new pandemics while ensuring continuous health care service delivery to people seeking care from ongoing illnesses.

Conflicts of interest

None declared.

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<https://doi.org/10.1016/j.ijt.2020.06.001>

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