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A spotlight on TB is all we need

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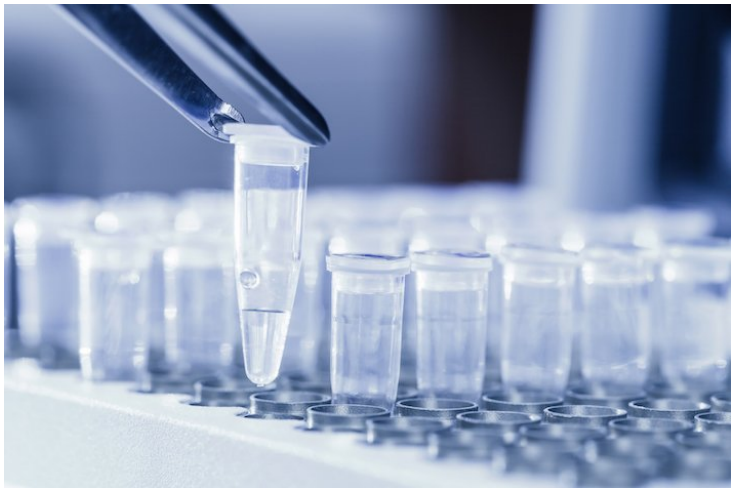

Last couple of years are curiously marked by exponential increase in a commoner's knowledge on infectious diseases - from diagnostics to treatment. A commoner leant difference between RT-PCR test and rapid test, HRCT scores, SpO2 levels and many more technicalities. But more than anything, she got a firm handle on statistics of diseases. What earlier was just a number, now translated into an experience and a common citizen today knows how devastating it is to lose ~5,00,000 lives to a disease in a span of 2 years. It is no longer a statistic.

And this is the right time that we understand the other deadly and truly preventable diseases that are causing the same or more havoc but without the spotlight on them. It might surprise many that In India, Tuberculosis (TB) alone took 4,45,000 lives in just one year (2019 data — World Health Organization TB report 2020) and WHO estimates more than 26L patients every year to be notified of having TB. On the World TB day, this note puts forward a key challenges, their scale and why the post-COVID-19 India can eliminate TB before 2025.

The trickiest part in TB is to diagnose it. Unlike COVID-19, a rapid or self-test is not an option because of low accuracy. India banned these tests in 2012 and molecular testing was added along with other traditional method of microscopy and X-ray imaging. But the problem is that molecular diagnostics (NAAT) had a limitation of reach. After a huge ramp up, India conducted just 30L tests (including positive and negative) in 2020. Compare that with 26L positive cases estimated by WHO in that year. But today, India is very well prepared with more than 3000+ new RT-PCR machines installed during COVID-19. These machines have a throughput up to 16x higher than traditional CB-NAAT machine. This means India can now test TB faster, and more of it.

The second issue is to detect latent TB. This is the type that has still not shown symptoms but can quickly become active when there is a decline in immunity. Global prevalence estimates for latent TB are 33%, i.e. one of every three individuals. This means even if we detect and treat ones with active TB, those infected with latent TB will create a never-ending pipeline of new cases and make TB impossible to end. Diagnosis of latent TB has been a choice between two difficult options, one is TST - a simple but inaccurate test and second, IGRA - a very expensive test. But then it seems there is a new test in sight which can be both inexpensive and accurate. India can hugely benefit from this.

The third most difficult thing is therapy. TB is very well treatable if diagnosed early. However, there are many problems in this area. One of them is therapy selection - because there is a huge drug resistance in Indian population. But then the manufacturers are now devising tests which can inform the drug resistance for several drugs, right at the time of diagnosis. For example, 11% new TB patients in India are resistant to Isoniazid drug. Knowing this beforehand, clinicians can treat patients with better success. Indian government's efforts for direct benefit transfer (DBT) to patient who are completing their course of medicines is a great adherence tool and can be a game changer once diagnostics become stronger.

Finally, India and the world needs a better vaccine for TB protection. Data shows a sudden spike in cases in the adolescent and young adult age groups. This means that the current BCG vaccine protection which is very strong in early age starts to taper towards the teen years. Globally, there are many projects in advanced stages for this which if progress well - can give India even better protection from TB.

Unlike COVID-19, which took us by surprise, I believe we are well prepared at every front in our fight against TB. All it needs it some spotlight from the commoners, the innovators, and most importantly, the media.

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