

## **Felled by the Virus Past and Present**

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The summer of 1918 was terrible, wrote Ahmed Ali in his novel *Twilight in Delhi* (1940, Hogarth Press). Influenza broke out in epidemic form and all through the day heart rendering cries rent the air. There was not a single house not visited by death. India soon became the focal point of that epidemic that killed 50 to 100 million people in one great sweep across the world in the last years of the first Great War. Commemorating hundred years of that worst tragedy in human history, the Spanish Flu, most commentators have highlighted two points. One, that the great pandemic had been largely forgotten even in India which lost 15 million lives, highest for any country. And two, another influenza pandemic is inevitable, sooner than later.

In 1918 bacteriology was in its infancy, existence of viruses still in speculative stage, and antibiotics were 30 years away. What was saving the human species from 'deadly corruptions of air' by the zillion tiny invisible pathogens was its own defence or immune system evolving through many thousand years and keeping in memory all past encounters. But that system becomes inefficient when faced with a new pathogen introduced in the environment as happened in the New World where Native Americans died like fleas when exposed to malaria and small pox brought by Europeans or when an old pathogen changes its recognisable signals as happens with flu viruses which change every season and cause minor epidemics. But a pandemic in the scale of the 1918 Spanish Flu to occur, along with the emergence of a new pathogen many other drivers were needed. Million soldiers living in close contact in the mud filled gassed trenches of Flanders, shortage of food and supplies, inadequate medical services, and warring nations suppressing truth provided all those drivers. How exactly the new H1N1 influenza strain emerged is still a matter of debate but the flu's passage to India carried by Indian Soldiers returning from France, its reaching Bombay in September 1918, and its subsequent progress to other parts of India following the railway tracks, infecting the habitations along the major rail routes first and then moving inland are all very well documented by the sanitary commissioners. The disease followed a singular pattern all over the world, then and in subsequent pandemics. The places affected first had the highest

mortality and people affected later in any place recovered better. Also it came in waves. The September-October outbreak was actually the second but far lethal attack preceded by a milder outbreak in summer. Uniquely it killed more healthy adults as their stronger immune system mounted an all out attack against the hitherto unknown virus strain entering through respiratory passages and producing a cytokine storm there to the fill the lungs with fluids. Young couples died in scores leaving many homes with only orphaned children. Surprisingly very few made that an issue, even Gandhiji writing to his son Harilal about a death in his family from flu observed, "Such news is pouring from everywhere so that the mind is now barely affected." The discontent that brewed silently amongst people might have indirectly fomented the freedom movements later but the great tragedy and its lessons seemed to have left no lasting mark.

The second observation has come true too! Reporting to King Phillip about the cause of the great plague French physicians blamed planetary positions which "caused a deadly corruption of air around us". This time physicians know exactly what has caused that deadly corruption of air and blame partly humanity's own folly. Which is to destroy natural wild life habitations and helping emergence of new killer pathogens, which can grow and live in one animal species, then can break an immunity barrier to infect the human species, break a second barrier to achieve human to human transmission and start an epidemic. Other drivers for a pandemic have become stronger too like large scale migration, over populated cities, industry level animal farming, and an exponential increase in international travel. The consequences will be immense, perhaps more in terms of social and economic loss than human lives because of certain benefits like experiences from the previous SARS virus, newer technique of molecular research speeding up vaccine production, a globalised coordinated approach, and above all the dictations of the supreme evolutionary principles of Mother Nature which will make the virus to gradually lose virulence and ultimately become just another common seasonal type. But in India we need to be extra careful because a pandemic is 'both a biological and social phenomenon' and some conditions exist here which can make Indian Subcontinent the focal point again - high density of population; bad hygienic habits like spitting everywhere, ill budgeted overwhelmed public health facilities, the nonexistent habit of taking regular vaccines, and above all a tendency to try unproven methods. It is not without reasons that India was amongst the last few countries to be free of scourges like small pox and polio, much later than most others.

