Disease as a Weapon

By A/Prof Lim Meng Kin

There's something inherently abhorrent about inflicting disease upon one's enemies. This stands in contrast to the use of "conventional" weapons like stones, spears, and smart bombs, which are somehow viewed as less inhumane, as evidenced by the fact that their development, possession and use are not constrained by international treaties and prohibitions.

This may explain why, although the potential for killing and maiming with germs and toxins has existed since antiquity (in 4 B.C., Susruta - India's father of medicine - wrote a treatise advising physicians accompanying the army on the march to be vigilant against poisoned wells and forage)[1], their actual use in battle has been surprisingly limited, as the historical record shows.

One of the earliest documented cases of bacterial warfare occurred in 1347 during the siege of the Genoese trading post Kaffa, in the Crimea. The Tartars catapulted bubonic plague-infested corpses over the walls into the Genoan fortress with devastating effect. The swiftly spreading deaths caused the Genoans to evacuate the post and sail to Genoa, and it was from here that plague is believed to have spread throughout Europe, causing the Black Death[2].

In 1763, at the suggestion of Sir Jeffrey Amherst, Commander-in-Chief of the British forces in North America during the French and Indian War, two blankets and a handkerchief from the smallpox hospital were given to two Indian chiefs; the disease soon broke out among the tribes in Ohio River Valley and thousands perished[3].

During World War I, German secret agents in the United States inoculated horses and mules that were destined for shipment to the Allies overseas with highly infectious bacteria, including those causing glanders[4]. And in World War II, the British stockpiled two tons of anthrax pellets, ready to drop them from bombers into German pastures should Hitler unleash germ warfare on Britain, but they were never used[5].

Testimony obtained during war crimes prosecution after the War revealed that the Japanese had conducted 12 large-scale field trials and attacked at least 11 Chinese cities with biological agents. The attacks featured contaminating water supplies and food items with pure cultures of *B anthracis*, *V cholerae*, *Shigella spp*, *Salmonella spp*, and *Y pestis*. Cultures were also tossed directly into homes and sprayed from aircraft. Potentially infected fleas harvested from plague-infected rats were released from aircraft over Chinese cities to initiate epidemics of plague[6].

In 1969, at the height of the Cold War, President Nixon unilaterally ended the U.S. biological weapons programme, and pledged that the nation would never use biological weapons under any circumstances. The entire arsenal was destroyed by 1973, except for seed stocks held for research purposes. Interestingly, however, the Central Intelligence Agency was admonished during a 1975 congressional hearing for illegally retaining samples of toxins after presidential orders mandating their destruction[7].

The 1925 Geneva Protocol prohibits the use of "bacteriological methods of warfare"[8]. This is complemented by the 1972 Convention on Biological and Toxin Weapons, in which a hundred and two state signatories agreed

"never to develop, produce, stockpile or otherwise acquire or retain microbial or other biological agents, or toxins, whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes and the weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict[9]".

But aside from the difficulties associated with verifying compliance (as the case of Iraq, a signatory of the 1972 Convention shows)[10], and punishing non-compliance when it occurs, such prohibitions embodied in international treaties are directed primarily at the actions of states, not clandestine organisations or individuals.

As biotechnology advanced, and the "weaponisation" of biological agents became more sophisticated, wary armed forces of the world focused on the development of countermeasures, including detection, personal protection, vaccination, diagnosis, and treatment. In the meantime, rogue states and terrorist bands had their own ideas. Unthinkable or not, the events of September 11 and the subsequent spread of deadly anthrax by civilian mail in the United States radically changed the very nature and meaning of conflict itself. It is a grim reminder that despite all the signs pointing to the progressive march of the species, man's obsessive inhumanity to man has not diminished.

Numbed by new talk of a "different" war, and stalked by ominous microbes lurking in the shadows, the entire civilised world must surely continue to hold in utter revulsion and opprobrium, those who would descend to such depths as the primitive use of disease and poison as weapons of crime against humanity. ■

References:

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