Black Fever and British medical policy in India

Black Fever, or kala-azar, was a major health problem in northeast India under British rule from the 1850s. It affected Assam, Bengal and Bihar, both epidemiologically and endemically, and was a major cause of mortality. The disease attacked all economic classes and social groups, although it was less frequent among British and Indian troops. It led to depopulation and desertion, and affected the cultivation of tea and other crops, plantation profits and government revenues.

Medical knowledge

The disease seemed to have been brought under control after 1920 as diagnostic, curative and preventive measures were developed and implemented. Successful treatment started with the introduction of sodium antimony tartrate (the first effective antidote to kala-azar), which from 1919 was spread through propaganda campaigns, legal measures and medical research. The number of special kala-azar hospitals and dispensaries increased thereafter in Assam and Bengal. By the mid-1920s, more efficacious drugs were found, the most successful being urea stibamine. Treatment with these drugs reduced mortality rates and the government of Assam made treatment compulsory under the revised Kala-azar regulations in 1920 under the Epidemic Diseases Act.

Research on the disease continued until the end of British rule under the Indian Research Fund Association (IRFA) at the kala-azar research wards of the Pasteur Institute, Shillong and at the School of Tropical Medicine and Hygiene, Calcutta (CSTM). Experiments were conducted on the vector’s behaviour, while early diagnosis of kala-azar used simple pathological tests and new drugs such as sodium antimonyglucmate (SAG). In 1942, the sandfly was conclusively proven to be the vector of kala-azar.

The sandfly was conclusively proven to be the vector of kala-azar. Thus all probable methods of conquest of kala-azar became known. It was known that treatment of all cases in an endemic area would lead to control if eradication in that area. It was also known that modern insecticides, such as DDT and pyrethrum, were effective against the sandfly. But the disease could not be effectively controlled and eradicated even up to the 1940s because of inadequate funding and medical infrastructure, and because of the deplorable environmental conditions in the ‘vile’ lines of tea gardens, villages and towns in Assam, Bengal and Bihar.

Public health a low priority

India’s public health services lagged abysmally behind progress made in western countries. Besides kala-azar, diseases such as malaria, cholera, and tuberculosis caused havoc among India’s rural population, even in the 1940s. Many of these diseases were rampant in England and other European countries up to the mid-19th century, though the neocolonial literature has portrayed India, in particular, as a quagmire of lethal diseases and epidemics. Some recent writers have taken a more critical view, arguing that European commercial and political penetration in the 19th century and the creation of colonial infrastructure – roads, railways, plantations, and labour migration – facilitated the dissemination of diseases (Arnold 1988: 5). Besides kala-azar, dysentery and cholera were associated with unsanitary conditions in the tea gardens. Planters were reluctant to spend money on sanitary improvements and Indians were blamed for their apathy and resistance to sanitary programmes.

The colonial investment in both sanitary research and reform into pyrochrolysis made a vast difference between the tropical and temperate zones. Cholera is a case in point: it was rampant in England and India in the second half of the 19th century. While sanitary reforms eradicated this waterborne disease in the West, nothing similar was carried out in India. Examples of measures made after considerable bureaucratic foot-dragging. It is difficult to ascertain how much of the revenue collected in India was spent on health and sanitation, but it was certainly not more than a fragment. It is undeniable that low sanitary conditions were the hallmark of the health of India’s rural population.

The Medical Department, perhaps more than any other, felt the effect of financial stringency. Fund retrenchment in medical research occurred frequently and reduced the salary of the medical officers for India was between 3 and 4 annas per annum. Of this, only one-third went to preventive medicine. In the UK Rs. 54/- per head per year was spent on medical relief alone (Vaughan 1944: 7).

There was no death of co-operation from the people in combating kala-azar. In Assam the people co-operated with health officials; but in the宣传教育 of the Epidemic Diseases Act for checking the progress of kala-azar. The villagers reported kala-azar and requested medical assistance and attended the anti-kala-azar campaign conducted by the Health Department. The people could treat only a segment of the population. But thorough surveillance could not be carried out because of a paucity of doctors. Nothing was done to prevent the spread of disease by the transmitting vector. There were neither short-term nor long-term projects for vector control, either by spraying insecticides or by providing better sanitation, even after the War.

Improvement of sanitation in rural areas and liberal use of lime wash might have been effective in making conditions unfavourable for the sandfly. But thorough surveillance could not be carried out because of a paucity of doctors. Nothing was done to prevent the spread of disease by the transmitting vector. There were neither short-term nor long-term projects for vector control, either by spraying insecticides or by providing better sanitation, even after the War.

Deficient measures

The public health service was only partially developed in India and consequently diseases were widespread. In Bengal, the recorded incidence of kala-azar (probably a fraction of the actual incidence) had been steadily from 1920 to 1943. After 1920, responsibility for tackling the disease was left to local authorities, who had inadequate resources (Ray 1958: 71-72). Affected villages were often left to their fate and died of the disease. Arthur Dash, Secretary to the government of Bengal in 1927 decries in his memoirs a dismal kala-azar dispensary in Bengal, staffed by unskilled medical practitioners. Though the disease was showing signs of regression in certain districts in West Bengal in 1944, the incidence was increasing in a number of districts in East Bengal, particularly Chittagong, Dacca, and Faridpur. Iron in Calcutta, part of which had been a focal point of infection in 1920-21, the disease was not only more prevalent in 1947 in that area, but had spread to other parts of the state as well (Sengupta 1947: 281-286).

Curtative and preventive measures to control the incidence were also meagre in Assam. There had been several kala-azar epidemics and the incidence there was higher in the 1940s than in the previous decade. Inadequate arrangement for the treatment of diseases in rural areas of Assam was reported in public health reports (1933, 1944). The number of kala-azar patients at the CSTM became so large that the staff were unable to cope.

Moreover, no effective means of prevention based on the epidemiology of the disease was devised. Medical research had provided important clues pointing to the role of the vector, but even after 1942 when the transmission agent was confirmed and the Director of Public Health at Assam advocated further preventive measures, means for controlling the vectors were not found. Continuous surveillance in key areas could have helped to prevent its spread. But thorough surveillance could not be carried out because of a paucity of doctors. Nothing was done to prevent the spread of disease by the transmitting vector. There were neither short-term nor long-term projects for vector control, either by spraying insecticides or by providing better sanitation, even after the War.

Health policy changed following independence. Control of epidemic diseases received priority and modern medical technology was increasing. Both preventive and curative measures were emphasised. Based on the Bhore Committee’s recommendations, the government of India launched health programmes and action plans for the control and eradication of major communicable diseases. The National Malaria Control Programme, launched in 1955, was one of the earliest effective steps in combating malaria. Research towards the results was achieved and subsequent advice from the World Health Organization and other countries, the government launched the massive National Malaria Eradication Programme in 1958. Matching assistance from the central government, hitherto unavailable for any other public health programme, was given to assure the states’ participation. Indoor residual spraying with DDT in appropriate areas and fortnightly surveillance, followed by treatment of all detected cases, reduced the incidence of malaria from 75m in 1947 to 0.1m cases annually by 1965, and deaths due to it were almost eliminated (Saward and Hind 1998: 27). As a result, spraying against kala-azar was stopped in 1955, kala-azar transmission also declined to negligible proportions and death due to it reached almost nil by mid-1960s.

References

- Grant, John B. 1943. The Health of India. London.

Achintya Kumar Dutta
Reader in History
The University of Warwick, West Bengal