

## **Official Opinions, Religious Permission and Debate on Smallpox Vaccination in Colonial Assam**

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### **ABSTRACT**

*This paper is an attempt to look into the history of smallpox, the ancient process of variolation and the vaccination process, along with the rituals and myths around it. Smallpox is caused by the variola virus, which is an acute contagious disease. It was one of the most devastating diseases known to humankind, which caused millions of deaths before it was eradicated. It is an airborne disease, but it can also spread through physical human contact. The underprivileged groups in society were the most affected group and had a high fatality rate. Indian society had been following the process of Variolation throughout the ages. When the British introduced Jenner's method of Vaccination, into Indian society, it had to face a widespread resistance. The British were taken aback by the Indian process of variolation and its effect in treating smallpox. The Vaccination acts, of 1870s and 1880s made the process of Variolation, illegal in order to reduce its effect and promote Jenner's vaccination. This paper is based on the history of smallpox and the process of variolation, and the reactions and resistance of the Assamese society.*

**Keywords:** Smallpox, Epidemic, Vaccination, Assam

### **INTRODUCTION**

Smallpox is an acute contagious disease caused by the variola virus (WHO). It is an infectious human disease characterised by skin eruption with pustules, sloughing, and scar formation. Because of its high contagiousness and disfiguring results, smallpox has inspired fear and horror in humans, especially in the eighteenth century when it appeared to be virulent. The disease is characterised by fever, a general feeling of ill health (malaise), headaches, and back pain. These

initial symptoms are followed by a rash and small, raised bumps within two or three days (rare diseases/smallpox).

Smallpox was a prevalent disease in India, and accounts of it are referenced in the early medical compilations of Charaksamhita and Sushrutasamhita, which were compiled in the fourth century AD. Smallpox is also known as Masurika in Sanskrit. It comes from the name of an orange lentil with a form and colour that is said to resemble Smallpox pustules (Kabiraj Nagendra Nath Sengupta, 1901). Smallpox in India is associated with the Hindu goddess Shitala and before the introduction of the contemporary cowpox vaccination, variolation was used to vaccinate against this disease. According to medical history scholar Arabinda Samanta writes that 'first historically recorded virulence was in Assam in 1574' (Arabindra Samanta, 2012).

The discovery of the modern vaccination by Edward Jenner and its arrival in India led to the British government starting to promote this vaccination against the Variolation (Niels Brimnes, 2004). According to the Annual Sanitary Reports of Assam, 1880, the province of Assam practiced inoculation, and the people of the state preferred it to vaccination. A civil surgeon of Assam noted that, 'Vaccination, as the return shows, has but a flickering existence. Latterly I have ceased, after five years of futile effort, to confine vaccination to the town limits. The people are utterly indifferent to vaccination.' Another wrote, 'The people regard small-pox as a divine institution, and mix and mingle their children with small-pox cases (Sanitary report, 1880).'

The Assamese society was not welcoming towards the fresh calf lymph vaccination, and the Gossains, the spiritual guide of the population of Assam, did not accept it. As they believed that the disease could be cured by means of prayers and inoculation (General and misc, 1896). This paper looks into the impact of colonial science in the indigenous societies. The study is based on archival materials and is empirical in nature. Primary sources, such as government vaccination reports, sanitary reports, and files from the archival repository, are used. Secondary data in the form of literature are also utilised.

### **The Prevalence of Smallpox in India and Assam:**

Smallpox is often associated with the deity Shitala in India. The word Shitala is a Sanskrit term for someone with cooling and soothing abilities. The goddess was said to treat anyone suffering from the widespread fever with her cooling powers. The deity has a broom, a fan, a bowl, and a pot of water in her hands, and is recognised for cleaning many disease-causing elements. These tools are believed to eliminate infectious diseases and cleaning the surrounding.

David Hardiman, in his book, 'The coming of the Devi, Adivasi Assertion in Western India' explains how the worship ritual of the goddess varied from village to village. James Campbell

and R. E. Enthoven have provided a detailed account of these rites in Konkan (James McNabb, 1987). The traditional procedure was for the goddess who had caused the outbreak to possess the spirit medium first so that her wishes could be known, which led the people to visit the shrine or temple and offer their prayers. It was believed that the goddess would enter the victim's body, and the individual was venerated as an embodiment of the goddess (David Hardiman, 1987). The goddess's desire, according to legend, was that the participants refrain from alcoholic beverages, meat, and fish for the length of the ritual.

The Ceremony would generally last for around nine days, which corresponds to the duration of the disease in a survivor. Lastly, it had been believed that the idol of the goddess kept during the rituals had to be sent far away from the village. The Paradi ritual was a traditional rite in which the goddess was lured to leave the area by food gifts and sacrificial items. In a large, shallow basket, cooked rice and other religious objects were placed. The head of a goat was slaughtered and put on the rice, and the people carried the basket to the village's border. In certain circumstances, the basket was buried, and the process was repeated with a new basket in the next community (William Crooke, 1926). In other situations, the same basket was carried from village to village until it reached the sea, when it was thrown into the water.

In Assam, the goddess Shitala was worshipped with songs, prayers, devotional offerings, and cooling medicines (Kishor Goswami, 2011). Every stage of life has its own folk song in Assam. Aai Naam, is one of Assam's oldest folk songs. Smallpox is very much feared by Assamese women and therefore, is flattered with many sweet names. She is called Sitolaa, the cool one, the Aai or mother. Whenever a child catches measles or any other variety of rashes classed under smallpox, it is said to have 'flowers' on it, as Aai is also said to have appeared on it. Aai naam or prayer to prohibit Aai is a women's affair.

Aai naam is a type of devotional folk song sung by women in the state. It is associated with death and disease and is sung when a member of the family is plagued with a terrible ailment, such as smallpox. The women form a circle and sing to the beat of claps. Assamese mothers think that if their children survive measles or smallpox, they will be blessed, and they sing to appease Aai or Goddess Sitolaa (Nabamita Das, 2016).

### **Variolation and the introduction of the modern Vaccination**

The ancient method of variolation, or the technique of inoculating with various materials, was the most widely used method for preventing smallpox. Variolation is the practice of infecting people with low doses of smallpox. It would usually induce a mild form of the virus, preventing the person from being re-infected (Stephen N.J., Korsman). It was the most common indigenous medical practice used to protect against the smallpox outbreak.

The procedure for this method was to keep dry crusts from the pustules mixed with grains of rice in a box; when a mild form of the disease or virus was desired, a few grains of rice were inserted into a wound near the base of the thumb, while a severe attack was induced by inserting a little of the powdered crusts (Sohal, 2015).

The history of variolation indicates that the Europeans learnt about variolation from Istanbul. However, the practice was properly introduced to Europe by Mary Wortley Montagu from Constantinople in 1721(Kirkpatrick, 1977). Although the English medical community had been aware of this for years, they paid little attention.

Benjamin Jesty used cowpox to vaccinate his spouse and children against smallpox, which was believed by them to be the first genuine vaccine. Although Edward Jenner was not the first to use this vaccine for smallpox, he is credited with creating the therapy because he had the qualifications and approaches to popularise it, as well as producing arm-to-arm vaccine transmission (Eagle, Gad). He is considered to be the founder of vaccinology in the West in 1796, after he inoculated a 13-year-old boy, James Phipps, with the vaccinia virus (cowpox) and demonstrated immunity to smallpox (immune.org).

Variolation was prevalent in many parts of India, especially Eastern India, hence was accepted by few British officers as having stronger roots. Vaccination was understood to have been less effective and inferior as a practice. Once the push for vaccination started officially the colonial medical establishment had to reckon with various ideas that emerged from the indigenous society. More often than not it was not resistance but not acceptance of the new practice of vaccination. So the drive towards modern scientific medical emancipation of the 'native people' the Small pox Commission of 1850 compared variolation to social evils like 'Sati' and 'Female Infanticide' usually associated with the civilizational backward society(Kishore Goswami, 2023).

### **Resistance to the Vaccination**

Smallpox vaccination programs in the eighteenth and nineteenth centuries are mostly regarded as the initial large-scale medical interventions in society. Jenner's vaccination was introduced in India in 1802 and was promoted with considerable enthusiasm by European officials like the Governor of Bengal, Lord Elphinstone (Mark Harrison, 1994). They had to persuade Indians to switch from variolation to vaccination in many regions because the old procedure was an established indigenous practice. The colonial officers were aggressively encouraging it. Anna Dusthall, a three-year-old child from Bombay (now Mumbai) became the first person in India to receive the smallpox vaccine on June 14, 1802 (Chandrakant Lahariya, 2014). Even in areas like

Madras Presidency, where variolation was not so common like in Bengal, the earlier attempts at variolation were swiftly replaced by drive for vaccination( Niels Brimnes, 2004).

The smallpox vaccine as lymph was transported from Bombay to Madras, Poona, Hyderabad, and Surat by a chain of vaccines. The benefits of the smallpox vaccine have been established in such a manner that variolation was prohibited in several European countries because of its consequences, as well as in several Indian districts, as early as 1804. During the initial stages of this campaign, it was hoped that vaccination would be accepted by the Indians. However, because of a variety of factors, including the necessity to pay for vaccination, the belief in the practice of inoculation and that the disease was a divine wrath, and many other conceptions, the public's uptake was poor.

It is pertinent to mention that despite the debates in colonial administrative and medical circles small pox vaccination was also not well received initially in Europe and likewise it was attributed to 'irrational and superstitious' fear. What compounded these perceptions in colonial India was that it was imbued with the ideas of 'racial otherness' and 'racial superiority'(ibid).

Smallpox was characterized by seasonal prevalence and was worse in the first quarter of the year, because it was sustained by continual importations, and the spread was favoured by the cold weather; it was less severe in the second quarter and least so in the third and fourth quarters.

There were technical limitations to the vaccine, such as a shortage of lymph (Lymph is a clear-to-white fluid made of White blood cells, especially lymphocytes, the cells that attack bacteria in the blood (medlineplus) and cowpox crust, which had to be imported from Britain. However, the initial issue was that British supplies remained uncertain, regarding capacity and volume. One of the major arguments used against vaccination was also this issue of a really small window, i.e. the cold season to practice vaccination. The British authorities were most concerned about protecting their troops against smallpox. Vaccination was further hampered by a massive cultural and political barrier. The most significant of these was the fact that the dominant form of vaccination in India was arm-to-arm until well into the 1890s, which was considered ritually polluting by the Hindus as it entailed the transfer of bodily fluids from the low caste or untouchable vaccinators (Harrison, 1994). Many more societies may have opted out of vaccination for more practical reasons, such as the fact that it was challenging to obtain, dangerous, uncomfortable, and, most of the time, ineffective(David Arnold).

By 1947, vaccination had developed into a well-established and integrated element of India's public health system. Sir Joseph Bhore chaired a commission that produced a report in 1946 with recommendations for the development of health care in post-war and perhaps postcolonial-India.

Even though actual politics sometimes differed from the report's recommendations, it was extensively referenced in the decades after 1947.

### **Religion, Satras and vaccination concerns**

In the early part of the 19<sup>th</sup> century there were reports of aversion to vaccination in Assam by John M'Cosh (Kishore Goswami, 2023). When Gunaviram Barua was the Extra Assistant Commissioner of the Nagaon district in 1873, he pointed out in a report to the colonial government of Assam that due to religious restrictions, some sections of the Hindu community, particularly Vaishnavites and people from the Muslim community, had a strong apathy towards the colonial government (J. Bhuyan, 2011).

By 1850, the Committee on Smallpox Inoculation considered the religious aversion or previous practice and put this question on small pox to religious heads, 'pundits'(Arabinda Samanta, 2012). In fact many Pandits did agree with caution that if inoculation is done, then it should be considered as a natural occurrence of the disease, or visitation by the Goddess, Sitala and hence all rituals associated with it should be followed (ibid).

Even towards the end of the 19<sup>th</sup> century there was exchange of opinions regarding using of calf lymph in vaccination. The colonial state's push regarding vaccinating civilian subjects were tempered by opinions not really wanting to directly inflict its rule on the intimate body of the subject and their religious beliefs. Incidents of 'pious fraud' were also committed by the British to induce Brahmins and common people to accept vaccination(Arabinda Samanta, 2012).

The Commissioners of the Assam Valley districts made attempts in 1895 to implement vaccination with fresh calf lymph. But it was thought pertinent to take into account the opinions of the Vaishnava Gossains, or Mahapurushiya Gossains in case the measure to vaccinate common people gave rise to popular unrest. The Deputy Commissioners of Kamrup, Nowgong and Lakhimpur anticipated opposition from the Mahapurushiyas and recommended that rather than introducing it among the whole population 'experimental step of the system might be tried in municipality" (Mr Ellis of Madras). Deputy Commissioners therefore got in touch with Gossains of Satras. The communication between the Chief Commissioner and the Deputy Commissioner of Sibsagar throws light on these on-going negotiations (ibid). The Gossain of Auniati Satra made no obvious objections to the vaccination initiative and promised that there would be "no religious obstacle to the vaccination of his disciples, as proposed with fresh calf lymph or to their vaccinating calves for the purpose of procuring lymph" (Deputy Commissioner to Sec).

These enquiries also lead to finding the affiliations of Gossains, for example the Dakhinpat, Garamur and Kurabahi Gossains as being aligned with the Auniati Gossain. Despite Deputy

Commissioner's claim that he has not been able to personally consult all the Gossains he presumed that the authority of the Auniati Gossain will make others follow the lead. Auniati Satra had been a leading institution to initiate change in colonial Assam so the faith in the voice of its head was not unfounded. Scholar Benudhar Sarma and Historian H.K Barpujari both write about the profound influence of the Gossains and Satradhikars over the common people (Damudhar Nath, 20070). The colonial rule slowly ushered in transformation and Satras had to encounter these questions of social change. Various Satradhikars and Gossains differed and debated on issues like caste, untouchability, child marriage, widow remarriage and opium addiction and the language issue. These were massive questions in front of monasteries which had witnessed very little change for a long time. The question of vaccination was another such vexing question. Between the need to maintain purity and control, discussions with native agencies small pox assumed a political character for the colonial state (Arabinda Samanta, 2012).

Despite that as expected by many colonial officers the Gossains of Benganati, Belaguri, and Ahatguri Satras strongly opposed to vaccination in any form. Colonial officers noted that "Mahapurushiyas object to vaccination on the same grounds on which they object to anything intended to ward off or cure disease, which they say should be remedied by means of prayers alone" (ibid). The same Gossain also claimed that the opinion of Nadia pandits will not be able to influence the Mahapurushiyas on this matter and in case anyone went ahead with the vaccination they would be liable to pay a fine which could amount to one rupee (Dept General and Misc, 1896). The Satras where Sakta pandits of Nadia had any influence were the Parvatiya Gossain, Mukalimoria Gossain and Pahumariya Gossain and in those areas colonial officers thought that there would not be any hurdles regarding vaccination. The Gossain of Komolabari Satra wrote back quoting religious text about the veneration of cows in Hindu religion: "The eaters of cow flesh are designated as the men of lowest rank of men. A Bipro who even gives away a cow to anyone of them to be killed for food must undergo the penance in order to purify his as if he himself has slain it."(Lakshmi Kanta Adhikar Goswami) Garamuria Gossain expressed opinion of 'learned' that cow lymph inserted in a body cannot be claimed as a sin (Nityananda Sarma). The Chief Commissioner eventually accepted the view that coercive measures could not be adopted to induce the Gossains to withdraw prohibitions.

The traditional practice of variolation was practised. There were also specialised practitioners known as tikadars or mark-makers who would accept fees and perform the variolation (Harrison, 1994). According to the record on vaccination in Assam, the inhabitants of Cachar, Darrang, Goalpara, Khasi Hills, Naga Hills, Nowgong, and Sivasagar were highly opposed to the vaccine and did not support it. Later, variolation was outlawed. The Vaccination Act of the 1870s and 1880s made concrete efforts to combat variolation by making variolation illegal and vaccination

mandatory. In the instance of smallpox, the effect of British attitudes on medical beliefs and practices was slowly and surely forced into the native society.

## **CONCLUSION**

The discussion around the colonial communication regarding smallpox vaccination was therefore not uniform. Unlike what one might presume, religious heads and even common people were divided on the issue. Though, it may appear that vaccination was commonly received with apathy or hostility among Indians. To the common people “the pock was a new sacrament, ‘an external visible symbol of an internalised state’, indicating that the person had not only ‘taken’ the disease and was protected but was also the carrier of an external visible sign of a contract he had entered into vis-à-vis the state” (Arabinda Samanta, 2012). The citizens were unfamiliar with it initially, and it was viewed as a secular alternative to the religiously sanctioned practice of variolation. As we have observed in the above discussion the dialogue or exchange with the religious preceptors of Assam as an attempt to also too “redefine the contract between patient and practitioner” (ibid).

In India, the evolution of vaccination attempts was considerably more complicated. But after the independence of India, Nehru and the first health minister, Rajkumari Amrit Kaur, realised that they needed to maintain the smallpox vaccination service. As a result, massive investments in smallpox vaccine manufacturing and inoculation proceeded. Since the early 1950s, global health professionals have been debating the possibility of eradicating smallpox. The World Health Assembly (WHA) passed a resolution to eradicate the illness in 1958, after considerable discussion, a declaration that had significant consequences for India’s health system. In 1962, India launched the National Smallpox Eradication Programme (NSEP), with the goal of vaccinating the entire population within three years. However, coverage remained low after five years of adoption, and outbreaks continued to be recorded. Under the overall direction of the WHO, an enhanced eradication campaign was begun in 1973.

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