

SMALLPOX IN EARLY SINGAPORE (PART II) (1830 - 1849)

By Y.K. Lee

A brief introduction to the study of the medical history of early Singapore has already been outlined.¹ The history of Smallpox in Singapore from 1819 to 1829 has been documented.²

In June 1829, the Vaccine Department in Singapore was abolished as it had proved ineffective in controlling Smallpox, and the Government had found the cost of its maintenance prohibitive.²

Smallpox remained endemic, attacking both natives and Europeans alike, with the Government not taking any steps at prevention. European deaths were often announced in the newspapers:

"Death, on 14th instant, of Smallpox, Matthew, the son of Mr. John Minass, aged 13 years and 10 days."³

This state of affairs persisted until 21st July 1836, when Dr. William Montgomerie, the Senior Surgeon, wrote to the Medical Board in Calcutta for permission to re-establish the Vaccine Department, to employ staff and to incur expenses for the re-introduction of vaccination.⁴

This request was approved in August 1836 on a trial basis for one year:

"... authorise you to entertain the establishment which you propose for vaccination in the settlements in the Straits. This measure for the extension of the preventive is to be considered experimental and the permanency of it will depend chiefly on the success of the vaccinations during the first year.

The Board confide in your discretion to select proper persons and issue such instructions for their guidance as may encourage useful exertion and prevent errors in their reports.

The Civil Auditor will be requested to pass bills accompanied with the necessary vouchers for the following establishments as suggested in your letter:

1st One Apothecary, Assistant Apothecary or other properly qualified person acting as Vaccinator at Singapore, to have 20 Rupees per month as long as the genuine vaccine virus is kept up.

2nd Two Vaccinators at Malacca, one in Town at 20 Rupees p.m. and one in the Interior at 16 Rupees p.m.

3rd One Vaccinator at Penang and one at Province Wellesley, each at 20 Rupees per month.

These you will inform the parties are maximum rates of payment in excess of what can be allowed.

Each bill must have a certificate appended to it from a Medical Officer stating that he has seen at least of vaccine disease between the 20th and the last day of the month for which pay is claimed."

On receipt of this letter, Montgomerie immediately wrote to Governor Bonham on 24th October 1836 "to request permission for my proceeding to make arrangements for carrying the objects contemplated into effect by conveying to the Medical Officers at the different Settlements, instructions on the subject."⁵

Bonham authorised the disbursement of the necessary sums of money to re-introduce vaccination from 1st December 1836, and wrote to the Bengal Government for covering approval.⁶ This was given on 13th January 1837.⁷

This vaccination campaign was not a success, and an epidemic broke out among the native population in early 1838 carrying off hundreds of victims. This was attributed to the native population's prejudice against vaccination and the consequent reluctance to take advantage of the prophylaxis. In June and September 1838, the Editor of the Singapore Free Press, in reports of the morbidity and mortality of the epidemic, suggested that means should be taken to educate the natives on the advantages of vaccination:

"We regret to learn that the Smallpox has lately been committing great ravages among the native population of the Settlement. No less than 300 individuals, men, women and children, as reported to us, have fallen victims within the last three months in the Town. This is a frightful devastation, and we suppose, it was some similar example of the fatal effects of this scourge at Malacca which drew from the Recorder those observations on the subject of vaccination which fell from him while lately addressing the Grand Jury of that Settlement. The illustrations which he then furnished of the benefit conferred to the population of Ceylon by the introduction of the cow-pox ought certainly not to be lost sight of with regard to the Straits. Although to remove the ignorant prejudices which exist on the subject among the natives must no doubt be a matter of some difficulty, but among other Societies, why

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not have a "Vaccination Society" for the Straits Settlements. We know of no other, at least no better, means for disseminating correct notions regarding the practice among the native inhabitants of all ages and classes."⁸

"We regret to learn that the ravages of the Smallpox, the melancholy effects of which among the native population of the Settlement we noticed several months ago, continue with undiminished virulence. It is useless in this place to expatiate on the benefits of vaccination. But it is surely time some means should be taken to introduce the practice among the natives, and to this end we hope the benevolent and philanthropic members of the community will soon direct their attention."⁹

The prejudice against vaccination was not the only reason for the endemicity of Smallpox in Singapore. Infected cases were continually imported from neighbouring countries and islands. Merchant vessels and warships carried infection from further afar. The war with China which broke out in 1840 aggravated the situation. Naval vessels and troop ships of the Expeditionary Forces from India called at Singapore on their way to China. They brought their quota of Smallpox patients who were landed in Singapore for treatment. The ships also had to be disinfected in the harbour. "... The ship has been thoroughly cleansed and her insides brushed over with a preparation sent on board at Calcutta, and there at present appears no fear that the contagion will spread or again break out. ..."¹⁰

In the early 1840s, there was no separate civilian hospital for Europeans in Singapore. Those who could not afford treatment in the private hospitals, e.g. seamen, were admitted into the Chinese Pauper Hospital. This hospital was always very crowded with sick paupers and convicts. An epidemic of Smallpox in October 1842 increased the admissions into the hospital and created a very difficult situation. It was not possible to separate the Smallpox patients from the others. The danger of the other patients being infected made the Senior Surgeon recommend to the Governor that a house be rented and used as a hospital for the Europeans, and the section of the Pauper Hospital used by them be converted into an isolation ward for the Smallpox patients. This was accordingly done.

"I have the honour to inform you that there are at present a good many patients suffering from Smallpox in the Hospital which we are unable to separate from the other patients in consequence of the crowded state of the hospital. There is consequently very great risk of the disease being spread further among the other sick inmates, and it becomes imperatively necessary to make some arrangements to prevent this. I therefore beg to suggest that a small house in the vicinity be rented for the accommodation of the European patients at present in hospital, of whom there are a considerable number owing to the resort of ship-

wrecked British seamen to this port, and that the gallery at present occupied by them be appropriated as a Smallpox Ward. ..."¹¹

The Governor in his report of this to the Bengal Government stated that Smallpox had broken out among the patients, and in addition, had spread to the Convicts. "... Re destitute Europeans and seamen. . . in the Pauper Hospital. . . necessary to move them in consequence of the Smallpox having broken out in the Pauper Hospital. . ."¹² "... The Smallpox is, moreover, I regret to add, very prevalent in this Settlement and has unavoidably been communicated to the Convicts. . ."¹³

On 17th November 1842, the Singapore Free Press reported that the epidemic had passed its peak:¹⁴

"Smallpox, we are grieved to learn, is raging in the Settlement, attacking both old and young, and we understand a good many fatal cases have occurred. The deaths however we are glad to say are decidedly on the decrease."

Singapore then returned to its usual state, with sporadic cases of Smallpox occurring every now and then, some indigenous and some imported.

In his annual report for the year 1847/1848, dated 1st April 1848, the Senior Surgeon stated that the vaccination programme had been more successful than in previous years, mainly as a result of obtaining good vaccine lymph from Batavia (Jakarta). He also mentioned that a large number of children of the poor had been successfully vaccinated, although as a result of apathy, the Public Vaccinators had to go to their homes to look for them. He believed that a large reservoir of immune persons had been built up and that the natives were gradually coming to appreciate the value of vaccination. The Seamen's Hospital (built in 1843) had 12 imported cases of Smallpox:¹⁵

"... The propagation of vaccination in this Settlement during the past 15 months had been more successful than in any other previous year within my recollection owing chiefly to our receiving constant supplies of good lymph from Batavia. The number vaccinated amounts to 389 out of whom 304 have been successful. In this number I do not reckon the children of the better classes, but merely those vaccinated by the Public Vaccinator. The allowance for vaccination was drawn for four months and although the number of children is not numerically great, it has included nearly all the children of the poorer classes in Town and its vicinity, who it ought to be borne in mind, did not seek the remedy of themselves but were obliged to be sought for at their various places of abode, and who not withstanding their possessing a full knowledge of the benefits conferred by this boon to humanity, are in most cases too indolent to take any trouble about the matter. But by the late and previous vaccinations, I am happy to think that a large

portion of the native population are preserved from the ravages of Smallpox, and the natives are beginning to appreciate the prophylactic in a far higher degree than formerly, so that in a few years more, I hope we shall be free from the fear of anything like an epidemic visitation of the Disease. . . . The Seamen's Hospital. . . nothing satisfactory respecting the health of the Settlement can be deduced from this hospital, its inmates being mostly strangers who contract their diseases before they arrive here. Even the twelve cases of Variola (Smallpox) were landed from a Troop ship and sent to the hospital."

The Senior Surgeon's remarks were however too premature. There was the lull before the storm. An epidemic broke out in March 1849.

The Singapore Free Press on 15th March 1849 reported:¹⁶

"We are sorry to hear that Smallpox at present prevails to some extent amongst the natives, and that about 250 deaths have taken place from this disease, principally amongst children, the average daily mortality from this source being about 7 or 8."

And on 5th April 1849, it criticised the Government. "The Smallpox, we are sorry to hear, still rages to an alarming extent. It is to be regretted that Government does not adopt means of having a constant supply of vaccine virus."¹⁷

The Senior Surgeon immediately defended the Government and went on to explain the measures that had been taken. He also mentioned that the epidemic had jolted the natives from their complacency and a number of them had come forward to be vaccinated. The campaign had been so successful that enough vaccine lymph had been collected for some to be sent to Penang and Malacca. The method of sending lymph abroad was described for those interested.

"With reference to a remark in your issue of the 5th instant regretting that Government does not adopt means of having a constant supply of vaccine virus, you will be glad to learn that Government is not so unmindful of the welfare of its subjects in this matter as you suppose. A monthly allowance is granted for a Vaccinator so long as the vaccine is kept up. This is drawn under a certificate from myself, and a register kept showing the number vaccinated, the ages, sex and class of patients with failures and successful cases. During the past year, I have received vaccine about six different times, and the Vaccinator has been employed on each occasion to go round and seek for subjects among the native population, but owing to the indolence and apathy of some, and the fatalism inculcated by the Mohamaden creed, it is no easy matter to obtain a continued succession of patients so as to keep up this valuable prophylactic constantly and without intermission. I am happy to say that His

Highness the Tumonggong forms an enlightened exception to this remark, for he made it compulsory on all the inhabitants of his village to submit to vaccination, and I have his assurance that there does not remain one unprotected person at Tulloch Balanga by far the most populous village on the Island. The late visitation of Smallpox, however unpleasant, has not been without its advantages. For the people have accepted the boon of vaccination with greater readiness than I have ever before witnessed. The Government lately proclaimed to all the inhabitants of the Town by beat of the gong that they might have their children vaccinated by taking them to the hospital. This had the desired effect for it enabled the Public Vaccinator to perform the operation on 466 subjects last month, of whom 396 were successful and 70 failed. Besides, there were from 50 to 60 vaccinated by myself, it making a total of 526 in one month. Indeed, so vigorously have the opportunities been availed of, that we shall soon have to come to standstill for want of patients. The virus has been sent both to Penang and Malacca, and I may here mention for the benefit of those desirous of transmitting the virus that the most perfect mode of doing so is to put it into a small phial, well-corked, then envelop the whole in a case of gutta percha. It is thus hermetically sealed and cannot possibly be affected by damp or atmospheric vicissitudes. Moreover, the method is simple, easy and inexpensive. I hope, sir, I have now laid before you sufficient facts to disabuse your mind of the impression that Government and the medical staff to whom the Government must necessarily look to for vigilance in these matters, have been so unmindful of them as you suppose."¹⁸

There was a temporary respite, but an outbreak of Smallpox in epidemic proportions occurred again in June 1849. "Smallpox is again raging with renewed virulence in Singapore, principally amongst the native community. Indeed the disease seems to be extending all over the Peninsula and adjacent islands. . . ."¹⁹

This time, it was the Editor of the Straits Times who found fault with the Government, and accused the Senior Surgeon of neglecting his duties and of being more interested in his own private affairs. (Senior Surgeon Oxley had estates in Singapore and was a planter). He urged that Vaccine Stations be established so that patients need not travel long distances to avail themselves of vaccination. He criticised the absence of proper statistics and the lack of zeal in propagating vaccination. He wanted the "well-paid employees" of Government to have the fervour of evangelists.

"We regret to notice that Smallpox is very prevalent; the fatal cases are numerous. But notwithstanding this scourge is thinning the population by tens daily, and disfiguring for life

many more, no prompt or effective steps are taken to arrest the disease or mollify its attacks. It has been well observed that 'the cholera is the most complete scavenger'. Were this frightful disease to shew itself, means would at once be taken to stay its progress. Hundreds are allowed to die of Smallpox. No measures are employed by the Authorities to stem it. Vaccine Stations ought to be established in every district, and all means be employed to induce the natives to avail themselves of the benefits. The prevalence of the disease amongst the poorer classes of natives is a disgrace to the Executive and its well-paid employees. No opportunities are available to the poor to participate in the application of vaccination, and no measures adopted to ascertain the extent of fatality attending the ravages of Smallpox. Our Senior Surgeon is so completely inoculated with planting pursuits as to appear to lack both time and inclination to see to medical attendance on the poor. It is however the bounden duty of the Authorities to provide, in the most easily accessible places, vaccine matter and vaccinators. Men, women and children ought not to have to march from the remote districts of the Station to the Pauper Hospital; indeed their apathy or some other cause may influence them to neglect the opportunity. Vaccination in every country is like the work of christianizing. It is a missionary labour. The objects must be sought. Experience has shown that to throw open a church or a vaccine station and proclaim free admission is insufficient. The purlieus of our towns, our villages, lanes, nooks must be visited and the benefits carried to their doors. The decimating influence should prompt us, even in self-defence if uninfluenced by regard for our neighbours, to prevail on our servants and others to participate in the protective advantages of vaccination, but unless the Authorities provide the means and enforce the duty of its gratuitous and everyday administration, all attempts to spread around the blessing will prove of no avail.

. . . The disease has been banished from some countries and, with due care, might be eradicated from all. (By 1976, more than a century later, Smallpox had been eradicated from all countries in the world except one.) It is to the activity and missionary spirit of medical men in overcoming the prejudices, carelessness and ignorance of mankind that millions now live, who but for vaccination, would have been in their graves. We repeat, this missionary spirit is wholly wanting in Singapore. . . . Smallpox is a public calamity; its arrestation is a public good. . . ."²⁰

The Press were not the only group of people in Singapore who were alarmed by the epidemic. The Municipal Committee were equally concerned. At the monthly meeting held on 6th June 1849, Mr. Behn, a member, drew the attention of the Committee to the rapid and devastating spread of Small-

pox in Singapore. He observed that in Canton, the American medical missionaries employed a certain number of Chinese vaccinators, who were in attendance at stated times for the benefit of persons desiring vaccination for themselves or their children. The Committee concurred with Mr. Behn in thinking that similar steps might be advantageously taken in Singapore. It was resolved that a letter should be addressed to the Governor deploring the progress of the destructive pestilence, soliciting his attention to the subject and expressing the eagerness of the Committee to contribute in any way to help check the disease.²¹

This letter was sent to the Governor on 27th June.²² The Governor after consulting his Senior Surgeon replied on 9th July 1849²² that the chief difficulties encountered in the control of Smallpox were in obtaining the vaccine virus in a purified state; and when obtained, in preserving it from becoming spurious after a few transmissions; and lastly, in preventing vaccination from falling into disrepute as a result of untoward complications caused by impure and contaminated vaccine. He was of the opinion that employment of non-medically trained native vaccinators would not solve the problem as he believed that "to overcome the prejudices of the natives and to guard against failure in vaccination, the utmost care was necessary in having the operation performed by a person capable of estimating the purity of the virus and able and willing by persuasion and explanation to induce the people to seek aid", and he did not think that native vaccinators were so qualified. He proposed that if the Municipal Committee offered medical practitioners in private practice, a reward for every one hundred patients vaccinated by them, the practitioners would be encouraged to seek supplies of vaccine from various sources and participate vigorously in the vaccination campaign, thus helping the Government. He also informed the Committee of the steps he had taken. He had already approached the Bengal Government for vaccine to be despatched at every opportunity. He had asked the Resident Councillor to furnish the Committee with copies of a pamphlet on Smallpox printed and published in the Malay language some years previously setting forth the advantages of vaccination. He had also directed that a similar work be published in the Chinese language for circulation among the Chinese inhabitants.

The Governor's reply was discussed at the August 1849 meeting of the Municipal Committee. It was decided "that for the present, the Committee content themselves with offering Dr. Oxley for transmission to Batavia, the pecuniary assistance which he considers most desirable for procuring a continual supply of the vaccine lymph, but that the Committee cannot abandon their original idea and await a favourable moment for bringing it forward again. . . ."²³

The epidemic petered out in August 1849.²⁴

Vaccine was received regularly from Bengal and Batavia, but the supplies were often failures in the hands of the Senior Surgeon and the two doctors in private practice, Drs. Little and Allen.²⁵ The Senior Surgeon in October 1849 requested the Governor to ask the Court of Directors of the East India Company in London to obtain vaccine from the Royal Jennerian Institute, and to "send in the cool months of February and March, not during the wet months".²⁵ Governor Butterworth wrote:²⁶

"... The fearful ravages which the Smallpox has committed during the present year in these Settlements as well as in the neighbouring states have led me to seek supplies of vaccine from Bengal and Batavia, but it will be perceived from Dr. Oxley's communications that all have hitherto proved partial or complete failures, and I am therefore emboldened to write direct to second the exertions of that most able and indefatigable Medical Officer to check this very fearful disease, by requesting a supply of lymph from the Jennerian Institute. . . ."

A packet of lymph from the Royal Jennerian Institute was sent to Singapore by the Secretary to the Court of Directors on Christmas Eve 1849.²⁷

REFERENCES

ABBREVIATIONS USED:

S.C. = Singapore Chronicle. Microfilm. National Library Holdings, Singapore.

S.F.P. = Singapore Free Press. Microfilm. National Library Holdings, Singapore.

S.S.R. = Straits Settlements Records. Microfilm. National Library Holdings, Singapore.

S.T. = Straits Times. Microfilm. National Library Holdings, Singapore.

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9. S.F.P. 13.9.1838.
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15. S.S.R., W. 13. (88) (1.4.1848).
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17. S.F.P. 5.4.1849.
18. S.F.P. 12.4.1849.
19. S.F.P. 28.6.1849.
20. S.T. 26.6.1849.
21. S.F.P. 10.8.1849.
22. S.S.R., U. 16. (107) (9.7.1849).
23. S.F.P. 27.10.1849.
24. S.S.R., W. 15. (164) (20.5.1850).
25. S.S.R., W. 14. (257) (4.10.1849).
26. S.S.R., V. 15. (126) (4.10.1849).
27. S.S.R., W. 14. (344) (24.12.1849).