

PROCEEDINGS OF THE PLAGUE COMMISSIONER.

(1898)

MISCELLANEOUS.

No. 373

DATED 25. 10. 98

Despatch 27/10/98.

[Despatch Abstract.]

Plague Essay

Acknowledging with thanks the receipt
of a copy of the ——— from M. R. N. Appaswami
daram Pillai.

3 to order the ———

BACK PAPERS.

No.	Date.	No.	Date.

FURTHER PAPERS.

No.	Date.	No.	Date.

PLAGUE COMMISSIONER'S OFFICE.

(1898)

CURRENT No. 537

22/10/98

From M. R. R. N. Appasundaram
Pillai Sabas
Madras

Order

No.

22/10/98
22/10/98
22/10/98

Dated

Received 16-10-1898

Registered

Enclosures

Spare copies

I have the honour to
acknowledge with thanks the
receipt of a copy of the Plague
Essay published by you.

22/10/98

22/10/98

SUBJECT.

Forwarding a copy
of a few words
about the plague.

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

A few words about

the PLAGUE.

[as approved by Surgeon-Major, W.B. Baumgarten M.D., B.Sc., J.M.S. by Sanitary Commissioners and Surgeon-Lieut J.W. Cornwall J.M.S. Health Officer of Madras]

A new disease called plague has arrived in India, and seems to be approaching Madras. What is this disease? How can we recognise it? How can we fight the disease? What precautionary measures has our benign Government taken to prevent its advance? How can we as private citizens help the Government?

I.—What is Plague, and how can we recognise it?

After exposure to infection, the symptoms may begin at any time up to 10 days. The patient begins to feel ill, has pains in the bones, the back, the loins. Suddenly high fever sets in, the person appears dull and stupid, the whites of the eyes become red, his tongue is coated with white matter in the centre, while the edges remain red. He speaks in a slow hesitating manner, or sometimes replies in an angry tone. Then swellings called "buboes" may appear in the groins, armpits or behind the jaw, or in all these places. These are very characteristic of this disease, so it is sometimes called "Bubonic Plague." Sometimes buboes do not appear as the person may die too suddenly, or if the lungs are attacked by the disease in the pneumonic type. The disease is a very deadly one, for out of every 100 persons attacked more than 80 will die. Death usually takes place within 3 days of attack.

The disease is caused by a microbe which is found in the body of affected persons and especially in the neighbourhood of affected glands. These microbes, or germs, multiply to an enormous extent in an incredibly short time and secrete a sort of poisonous matter which is the cause of the symptoms of plague. Foul soil, crowded and narrow streets, and badly ventilated dwellings are specially favouring causes. The relation of infection to water is open to doubt, but certain facts have been observed that point to this being a possible medium. The clinging of the infective agent to clothing is more certain. Rats being very liable to infection, act as conveyors of the disease from an infected house to the surrounding houses. Rats warn us of the approach of plague, just as the barometer warns sailors of the approach of a storm.

II.—How can we fight the disease?

We all know that prevention is better than cure. How can we prevent the disease? We may do this to a great extent by observing (1) Domestic Cleanliness, (2) Personal Cleanliness, and last, but by no means least by (3) Inoculation.

The following remarks on Domestic and Personal Cleanliness are copied from Dr. King's invaluable little book entitled, "Simple Sanitary Rules," and these rules should be strictly observed on the approach of plague.

A.—Domestic Cleanliness.

1. Each house must be thoroughly cleansed, that is, all manure, dirty water, washings of cattle stalls and collection of dirt of any description, must be completely removed.
2. Where the earth remains damp and foul after such removal, it should be dug up till dry and clean earth is reached.
3. The old earth should be taken far from the town and may be used as manure for the fields; new earth from a clean place should be laid down.
4. The interior and exterior of houses should be whitewashed. If persons cannot afford to do the outside, the inside at least should be whitewashed.
5. Bundles of clothing and other materials hanging from the beams, or occupying in any other way the rooms in which persons sleep, should be removed.
6. Doors and windows should at all possible hours be left open, so that free ventilation be obtained.
7. If private latrines are used they must be kept free from faecal matter by removal at least twice daily.
8. The drains leading from houses should be cleansed twice daily.
9. Cesspools and pits for receipt of urine of cattle should be emptied daily.

B.—Personal Cleanliness.

1. The body and clothing should be kept scrupulously clean. If delicate, persons should use warm, not cold baths.
2. The food should be plain, nourishing and of good quality.

3. All vegetables, or leaves, or fruits likely to cause diarrhoea, should be abandoned.
4. All forms of drinking to excess, debauchery, late hours and exposure to wet and cold should be avoided.
5. Cold cooked food should never be used. Care should be taken not to allow flies to settle upon food. Vegetables and leaves should never be eaten otherwise than after cooking. Before being cooked they should be well washed in water that has been purified by boiling. Salt should be freely used with the diet; but on the other hand it must not be used in such unusual amounts as to excite uneasiness or looseness of the bowels.
6. An inferior quality of water should not be kept in the house; only the cleanest available should be employed.
7. Water for drinking purposes and for washing the mouth, and milk, should be boiled before use.
8. Persons with cuts or abrasions on their hands, feet, or other exposed parts of the body, should avoid attendance on plague patients. But if attendance is essential, the wounded parts should be covered, and on occasions of temporary withdrawals from attendance, the parts should be washed with disinfectants which can be obtained from the Sanitary Staff on application.

Persons attending on plague patients are recommended to wear shoes.

C.—Inoculation.

It is now admitted by all that vaccination is a sure preventive against small-pox. It is on the same principle that inoculation for plague is practised. A measured quantity of a fluid which is specially prepared by Professor Haffkine is injected into the skin of a human flank or arm by means of a hypodermic needle. The needle merely penetrates the skin, and does not reach the flesh or bones; a slight prick being all that is felt. This produces a mild fever quite free from serious danger. There is some pain at the seat of inoculation and a certain amount of fever for a couple of days. A few days later another and larger amount of the fluid is injected in the opposite flank or arm, producing a repetition of the symptoms, but usually of a less severe nature. The after effect on the person is the same as though he had actually suffered from plague itself. We know that one attack of plague usually protects from a second attack; so inoculation in most cases also protects us from the plague, and even if we chance to be attacked after inoculation we generally recover. It must be obvious to the least intelligent that if in this way we can render a large number of people in any area immune to the disease, we are practically starving the epidemic, which must therefore die out for want of material to feed upon; just as a fire does, when there are no more sticks to burn. And this has been proved to be the case. Figures from various parts of India can be quoted, but it will be sufficient to point out the most recent experiences in this connection. In the Southern Mahratta Spinning and Weaving Company's Mill at Hubli there were employed 1,173 persons. By the 21st of June last, 1,040 were inoculated twice, 51 were inoculated once only, and 75 refused to be operated on. Three months later it was found that the following deaths from plague had taken place:—

Among 1,040 twice inoculated, 22 deaths	
" 51 once " 8 "	
" 75 not " 20 "	

In other words, if the 1,040 mill hands who were twice inoculated had not been thus protected, 276 of them would have died instead of only 22.

Again in Dharwar, up to the 2nd September, 1898, there have been 37,196 persons inoculated. Among these

28,160 were twice inoculated and had 20 attacks	
9,036 " once " " 12 "	
1,014 who were not inoculated had 393 "	

In other words if the 37,196 persons who had been inoculated either once or twice, had not been operated on, we should have probably found that 14,394 of them would have been attacked, instead of only 32!

As no danger to life is caused by the inoculation, but only fever and a sore arm for one or two days he would indeed be a fool who refused thus to protect himself from the fearful plague demon.

Results such as these leave no doubt as to the value of inoculation, and the Government has therefore decided (G. O. No. 837 P., 17th August, 1898) that:—

(1.) Inoculated persons shall be exempted from segregation unless they are actually attacked by plague. They will, however, be liable to vacate infected houses.

(2.) Inoculated persons shall be exempted from detention when travelling, though their clothes may have to be disinfected.

III.—What precautionary measures has our benign Government taken to prevent the advance of the disease?

Plague is, in the first instance at least, a disease of locality, for the germ is believed to live in the ground. It is conveyed from one place to another by rats, and by infected persons in their bodies, clothes or personal effects. Means must therefore be found for recognising the first case brought to a locality, and of preventing the spread of the disease in the neighbourhood. If we see a person trying his best to put out a fire, so that it may not destroy a whole street, do we not praise him? Similarly let us applaud our benevolent Government for its endeavours to stamp out plague at the commencement; for if not checked, surely the plague demon will devour many of us! Government has therefore resolved to segregate the inmates of infected houses for a certain period if they have not already been inoculated and to remove the patients to hospitals where they can be conveniently treated. The houses will be disinfected and cleaned, and left vacant for such time as may be necessary for the death of all plague germs in it. It has been already said that plague is caused by minute germs or seeds, which cling to infected individuals and their clothes. These seeds may be destroyed by certain medicated fluids, or by heat. With this object, the clothing and personal effects of infected persons are to be immersed in such fluids for a time, or boiled. Worthless articles will be burned, as fire is the best disinfectant we know of. Compensation will be at once paid for any property destroyed. In addition to the above, Government has begun to examine all passengers by road or rail at certain fixed points, and people coming from infected places are made to appear for 10 days for medical examination. In this way it is hoped that the first case may be found out, and the infection prevented from spreading to others.

IV.—How can we, as private citizens, help the Government?

As all efforts to check the spread of the disease benefit society in general, every person in his own humble way must endeavour to make himself useful. It is possible for people in each town or village to form themselves into Inspection Parties under the head of one or more respectable residents in each quarter. The parties thus working should be entrusted with duties as follows:—

- (1). The detection of cases and their removal to hospital.
- (2). The evacuation of infected houses and removal of the inmates to a healthy camp and their immediate inoculation.
- (3). The disinfection of houses.
- (4). The spread of inoculation in the neighbourhood of plague cases.

Thus by helping ourselves we may help the Government. And let us do so heartily as loyal citizens.

It is specially important to bear in mind that the Government has not the least desire to send plague stricken people to its own hospital to be treated by European Doctors. In fact, people are at liberty to build their own hospitals and segregation camps for the reception of members of separate castes and religions. Indeed every facility is afforded by the authorities in this direction. The treatment of patients admitted into these hospitals may be placed in charge of Vydians and Hakims. No person will be compelled to take European medicines or to be treated by European Doctors. Women will be examined only by women doctors, and wherever desired, women doctors will be deputed to attend on sick women. Lastly compulsory examination of corpses will not be enforced.

To conclude, we are threatened by a dire calamity. Our Government has with commendable forethought, for which we cannot be too grateful, done its best to minimise an imminent danger. Indeed the rules prescribed are beneficent and humane. Our customs and prejudices have been respected. The object of the rules is merely to ensure (1) that the earliest possible information of any attack of plague should be conveyed to the authorities so that the plague microbes may be at once killed and prevented from spreading; (2) that medical assistance may be provided for those who, in spite of precautions, are attacked by the disease.

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