

at the hearing of the
appeal that the
prompt punishment
of such outrages is
essential to the security
of the white settlers

EAST-AFRICAN

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Report.

(Subject.)

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Report on outbreak of Plague

M - by Enc.

(Minutes)

Enc. to Sir: to be prepared
for personal & return to the
2

41297

Commissioner's Office,

Mombasa,

587

October 24th 1905.

ST AFRICAN PROTECTORATE.

No. 482

Sir,

With reference to my telegram No. 179 of September 18th reporting that quarantine had been removed from Nairobi and Kisumu, I have the honour to transmit herewith a report with enclosures by the Principal Medical Officer on the outbreaks of plague in those places.

I have the honour to be,

Sir,

Your most obedient,

humble servant,

Acting Commissioner

Principal Secretary of State

for the Colonies,

Downing Street,

LONDON.

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No. 69/1

P. M. O's Office,
Rm. 20 N.C. 1-5
NAIROBI,

17th October 1905.

588

Sir,

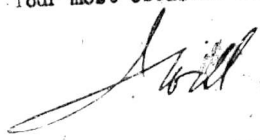
I have the honour to forward a report on the recent outbreaks of Bubonic Plague at Nairobi and Kisumu enclosed with which are:-

- Report by the Medical Officer of Health, Nairobi. Appendix No. 1.
- Report by the Medical Officer, Kisumu. Appendix No. 2.

I have the honour to be,

Sir,

Your most obedient servant,



Principal Medical Officer.

His Majesty's Acting Commissioner,

M O M B A S A.

Report on outbreak of Plague at Nairobi and Kisumu.

On the 28th August, the dead body of an adult male, Mwikuyu, was found in the compound of one of the Government Clerk's quarters near Government Square, Nairobi, and was taken to the Native Civil Hospital. 589

With some difficulty the following history was obtained - By name, Mcharia, a native of Maranga, a Kikuyu village half way between Nairobi and Fort Hall, he had been employed for the previous three months at Indian Bazaar No. 37 by an Indian trader, and slept on the mid floor in the passage between the trader's shop and living apartments. Some five or six days before death he had been taken ill with headache and pains in his back, and getting worse had been discharged by the Indian on the 25th. It appears that when discharged he was too ill to walk to his native village, and betook himself to the long grass near the clerk's quarters as above stated, where he died on the morning of the 28th. A postmortem examination was carried out by Dr J.A. Haran who noted the presence of a large swelling in the right axilla and at once sent for Dr Ross the bacteriologist. I was also present at the postmortem. On incising this swelling haemorrhagic inflammation of the glands was found, with extensive periglandular infiltration and oedema, extending forward under the right clavicle, also some blood extravasation. The other postmortem appearances were unimportant; they were slight emphysema of right lung, old pleuritic adhesion left, slight congestion of both liver and spleen, oedema in small intestine, oedema of stomach, and congestion of pia mater.

Smears were taken from sections of the affected glands and from the spleen, and on examination showed a fairly large number of encapsulated bacilli with bipolar staining. Some involution forms were present, but most had undergone no degenerative change, and could be readily identified as Bacilli Pestis.

The next case was that of a Mkamba named Wa Dunda, who was employed as sweeper by the Conservancy Department and resided with other sweepers in one of the Railway Landis. He was taken ill at 10 a.m. on the 4th September, and died at 8 p.m. on the same day.

In this case there were no buboes, but smears taken from the lungs showed on examination the characteristic bacilli of Plague. This case was of the acute pneumonic type, cases of which were common in the epidemic at Mombasa in the beginning of the year, and in whom the course of the disease was so rapid, that the patient died of acute intoxication before the lung had time to break down and give rise to expectoration.

The landi in which this man lived is about half a mile from the Bazaar, and the infection was most probably from the dust in the Bazaar, inhaled while in the performance of his duty as a sweeper.

A Masai woman named Nandrato binti Tagiri - a prostitute - was taken ill on September 6th, in Mombasa village, and died on the same day. Mombasa village is one of three native villages situated about a mile from the Bazaar and is inhabited chiefly by Masahilis - hence its name. It is about the same distance from the landi in which case No. 2 died.

The evidence regarding the illness of this woman was very conflicting. Her friends in the village stated that she had been ill for a long time, on the other hand, the police to whom she appeared to be well-known, affirmed that she was walking in the Bazaar on the day prior to her death.

The postmortem examination showed the body to be that of a well-nourished Masai woman. There were no glandular enlargements, but smears taken from the lungs showed Plague Bacilli in great numbers. The infection in this case was doubtless contracted in the Bazaar.

An Indian male child, named Hussain Gahan, aged 5 years, died after a few hours illness in No. 39 Bazaar. This

is next door to and apart of the same building in which case No.1 had been residing. The history of the case was very vague, the owner of No.37, who had been severely 591 fined for not reporting the illness of case No.1, reported this case and strongly affirmed that the child died after being ill for three hours. The father of the child when interrogated stated, that the latter had fallen into a cesspool at the back of the house and been drowned. The case was seen immediately by Drs Haran, Radford, Ross, and myself, and we could find no sign of drowning. Smears were taken from the lungs, by Drs Haran and Ross, and showed the Bacilli Pestis.

Measures adopted to deal with the outbreak :-

On the discovery of the first case, the premises in which the victim had been living were closed and thoroughly disinfected. The contacts were removed to a Segregation Camp situated $\frac{1}{2}$ of a mile from the Bazaar. A house to house inspection was carried out, and in connection with this it should be mentioned, that a thorough house to house inspection had been made on the day prior to the discovery of this case by the Medical Officer of Health and the Town Clerk.

The small-pox Isolation Hospital, a wood and iron building, situated in the open plain a mile from the town was put in readiness for the reception of actual plague cases should more occur. It was not considered necessary to adopt any other measures of quarantine which, considering the extent of ground covered by the town of Nairobi, could only have been very imperfect, and would have resulted in dislocating trade in general, but in particular, the labour market and food supplies.

Case No. 2 as already stated occurred in a landi situated $\frac{1}{2}$ of a mile from the Bazaar. This landi is with some others, the property of the Uganda Railway, and is rented by the Municipality for the accommodation of the

conservancy gang. All these landis are long low corrugated iron structures with mud floors, and are practically devoid of light and ventilation. The one in which the case occurred was unroofed and thoroughly disinfected, the inhabitants being removed to the Segregation Camp for contacts. 592

The hut in Mombasa village in which case No. 3 occurred was the usual native building of wattle and daub with thatch roof. As its destruction by fire would have endangered the whole village, it was pulled down, and the whole together with the floor space saturated with sublimate solution.

As three cases had now occurred and there was a possibility of the disease establishing itself in epidemic form. It was considered advisable to close the native market and establish markets for native produce outside the township area. This was done, one being placed on the Kikuyu Road and another on the Ngong Road, with the result that instead of hundreds of natives from neighbouring villages who formerly loitered in the Bazaar throughout the day, very few visited the town, and the arrangement did not stop the food supplies or inconvenience any one.

At the same time the section of the Railway between the Machakos Road and Kijabi was closed to native and Indian passenger traffic, and a camp for medical observation of those wishing to leave Nairobi established. Hitherto medical examination of all passengers leaving Nairobi by train had been carried out at Railway Station and this was continued till all apprehension of an epidemic was removed.

From the date of the first case, house to house inspection had been instituted in the Bazaar, and lime washing and disinfection of all houses in the Bazaar undertaken. The whole of the Municipal area was divided into 12 wards each under a responsible official, who made a house to house visitation every morning, furnishing a daily report to the Medical Officer of Health.

measures were in force till the 15th September - after the occurrence of the last case - when all lions were removed.

593

Source of Infection.

This outbreak presents several unusual features impossible to explain, and it may at once be said that the source of infection in the first case is unknown.

Several theories may be adduced, for example (1) Plague existed in Nairobi in 1902, this may now be an endemic area the Bacillus having taken up its abode in the soil. Against this hypothesis is the fact that the Indian Bazaar in which it occurred in 1902 was burnt down, the present Bazaar having been built since on a new site, and the researches of Pitchford in Natal show that the Bacillus cannot exist longer than five weeks in the soil. (2) It has been suggested that the infection may have been brought in cotton-stuffs from Zanzibar, the trader in whose house the first case occurred dealt chiefly in kanzus and lessos, articles of apparel affected by the Natives, which appeared to have been made in Germany and imported by a German firm at Zanzibar. The small traders in Nairobi procure their goods from Agents in Mombasa where handling of the goods in transit would presumably have given rise to cases, but happily so far no case has occurred in Mombasa. (3) There is every reason to believe that Bubonic Plague has existed in endemic form in the past in various parts of East Africa. In addition to the epidemic in Nairobi in 1902, an epidemic broke out among the natives at Mchakos seven years ago, and another about the same time in the Teita district.

During the past year reports have been furnished to me, mostly by District Inspectors of Police, regarding great mortality among rats in several villages of the Wakinyu, situated between Kiambo and Dagoretti, some nine miles from Nairobi. In all cases investigations were made, some of the villages were visited by Medical Officers, the people inspected, and rats both dead and alive brought in

and examined, but in every instance there was no evidence of plague among the people or the rats. As noted in the ^{report} of the Medical Officer of Health, it was stated that prior to the occurrence of the first case, rats were plentiful in the Bazaar, Government Offices, &c, and coterminous with ⁵⁹⁴ this case there was an exodus of rats from the houses to the plain. I have not been able to obtain any proof of this statement. As a matter of fact rats have been comparatively scarce in Nairobi for the past three months, this being the driest season of the year when they do not invade the houses, but live in the open. Rat-traps were distributed & a reward of one pice a head offered, but the number caught was very few. In every case examination by the Bacteriologist proved negative.

Outbreak at Kisumu.

There is little to add to the report of the Medical Officer, Kisumu, further than that an epidemic occurred there in January last, when no cases occurred in the police lines, but these lines are quite near the site on which the January epidemic first appeared.

There were three cases in all, two of which were in Police lines, the other being in a hut standing by itself half a mile away. This man, Babulla Hassan (case No. 2 in Medical Officer's report) was very active in assisting at the burial rites of case No. 1, and assisted to carry the body to the grave. It is however doubtful if he contracted the disease from Case No. 1, the interval between the death of No. 1, and his illness being 13 days.

All contacts were isolated and the police lines placed in quarantine no one being allowed ingress or egress except policemen for duty.

Although the diagnosis in these three cases was not confirmed by microscopic examination, there appears to be little doubt, judging from the history of the cases, that they were Bubonic Plague of the septicaemic type.

The source

The source of infection is quite unknown.

It may be mentioned that new lines for the Nubian Police were at once put in hand, and are now nearing completion.

595

A handwritten signature in dark ink, appearing to be 'S. Will', written in a cursive style.

Principal Medical Officer.

September 25. 1905.

Four cases only under observation, and it is worthy of note that none were seen during life, each case was certified as Plague after Bacteriological examination, which was conducted by Dr Ross the Government Bacteriologist.

Name	Age	Sex	Race	Date of onset.	Date of death.	Residence.
Moharia	16	M	Mkikuyu	28-8-05	28-8-05	No. 37 Indian Bazaar.
Wakamba Wa Dunda	17?	M	Mkamba	4-9-05	4-9-05	Cooli Lands
Nardrato bini Agiri.	20?	F	Masai	5-9-05	5-9-05	Mombasa village.
Messain	2+	M	Indian	7-9-05	7-9-05	No. 39 Indian Bazaar.

1. Moharia was discharged by his employer on account of illness and died on the same day in a clerk's compound. The body was brought by the Police to the Hospital; a well defined Bubo existed in the R Axilla from which smears were taken as well as the spleen, and Plague Bacteria found. Death took place on the sixth day of illness.
2. Wakamba, African died after a few hours illness, this case was certified as Pneumonia Plague.
3. Nardrato, Masai, died after 4+ hours illness, this case was certified as Pneumonia Plague.
4. Messain, Indian, the period of illness was not ascertained with any degree of certainty. Bubonic Plague was certified as the cause of death after Bacteriological examination of smears from the lungs, spleen, and other organs.

NOTE.

Cases 1 Bubo present.

2, 3, and 4 Bubo not present.

Four cases only were observed, and all in a locality of about 500 people were seen during the course of the investigation, which was conducted by the Health Department.

No. of Patients	Name of Patient	Age	Sex	Address	Date of Onset	Result
1
2
3
4

The houses separated by one sheet of galvanized iron, they a plinth of masonry in common, composed of dressed stones loaded with red earth. The back yards have mud floors and are separated by galvanized iron only, which is not so tight as the walls, so that both within the houses and yards the freest communication exists with regard to rat runs.

Case No. 2 occurred in the Coolie Landi some 4 miles from the Indian Bazaar. Though nine other Natives in the place, they did not contract the disease.

Case No. 3 occurred in a mud hut in Bombay situated about a mile from the Bazaar across the river. The woman was a prostitute and "visited" daily". This statement was made by the doctor for brother and father.

General means adopted to prevent the spread of the disease:

found, examined among rats, investigation on this point undoubtedly in certain districts, Bazaar, Military Lines, and Government great diminution in the number of rats observed the date of the first case.

Locality.

Cases 1 and 4 occurred in the Indian Bazaar, houses separated by one sheet of galvanized iron, they a plinth of masonry in common, composed of dressed stones loaded with red earth. The back yards have mud floors and are separated by galvanized iron only, which is not so tight as the walls, so that both within the houses and yards the freest communication exists with regard to rat runs.

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General means adopted to prevent the spread of the disease:

1. All contacts were removed to a quarantine.
2. The bedding and garments used by the patient were destroyed by burning.
3. The floors and walls of all houses were scrubbed and washed with acid lye solution 1 - 1,000.
4. All cotton, and other materials lying about were spread in the sun.
5. All bedding of suspected persons and was treated as in the case of No. 4.

The municipalities destroyed by fire
landed unopened.

House to house inspections were made
every part of the town for 14 days.
Responsible officers were assigned to
inspect the 12 wards in the town.

Legal proceedings for concealment of cases were
instituted in ten instances and convictions ob-
tained.

All traffic to the Coast, as far as Africans and
Asiatics were concerned, was prohibited on the
Mombasa Railway; I would point out that this
method of attempting to confine the persons re-
siding within an infected area, to that area, is
quite futile, as since the outbreak I have found
that Whites and Africans have proceeded by
road and rail outside the "infected area" and
then tickets to Mombasa, thus thwarting all
restrictions, and coming under the head of
"through traffic", escaping all quarantine regu-
lations, and proceeding direct to Mombasa which
was the intention of these regulations
to prevent.

I wish to place it on record that the
authorities received the greatest assistance from
the local community in carrying out all regula-
tions, in respect of quarantine. They instituted
their own contact and quarantine camps, bearing
the entire expense at their own request, and for
the duration all caste restrictions were held
in abeyance.

(Signed) William J. Rafford.

Medical Officer of Health
NAIROBI.

Sir,

I beg to report to you the following cases with reference to the Sub-Commissioner's telegram yesterday:-

1. Adama, police burglar, Nubian, admitted August 16th to hospital at 10.30 a.m. died the same day at 1 p.m. This lad was apparently very ill when I saw him, pulse 140, temperature 104, no physical signs were obtainable except he had a small femoral bubo on the left side. Tongue was very furred ^{and} brownish. He was quite well 24 hours previously. He suspected this was a night have plague and had him placed himself in the operating theatre. He rapidly became delirious and died at 1 p.m. All his personal belongings were destroyed and I saw him buried myself.
 2. At 8 a.m. on the 29th August it was reported to me that Babulla Hassan, Nubian, late Sergeant-Major of Police, had died at his house half a mile away from the Nubian lines. I examined the body and found there was a femoral bubo on the left side. The man had been quite well the previous morning, the 28th instant, but in the afternoon had complained of the swelling in the groin. He died at about 6 a.m. in the morning.
- I reported cases (1) and (2) to H.M. Sub-Commissioner and obtained his permission to burn the house of Babulla Hassan. This was done and all his personal belongings burnt as well. His two wives and two children I removed close to the hospital and observed them daily for eight days - they have remained well up to date.
- Same, Nubian woman. On the 7th instant at 6 a.m. I heard sounds of mourning and sent an askari to enquire where a death had occurred amongst the Nubians. I found a Nubian woman had died at 4 a.m. on that morning. Examination of the body showed left a large left femoral bubo. The illness had been

The house was burnt as it stood, nothing being removed. The house in which this woman first took ill was also burnt as well as her own house - three in all.

been of about 24 hours duration. A guard was placed round the house and no one allowed in. As soon as the body had been removed for burial, the house was burnt as it stood, nothing being removed. The house in which this woman first took ill was also burnt as well as her own house - three in all.

I have no doubt these three persons died of plague. The Police lines have been generally closed and a guard placed all round them. I have made and shall continue to make every morning and evening an examination of all those within the lines.

Rats are plentiful in the grass thatch of the roofs of the huts, but no dead rats have been found, and no rats escaped from the burning huts.

If fresh cases occur I would recommend that twenty - five tents be sent up - a portion of the inhabitants could be placed in these - the remainder to go into temporary huts, and that the whole of the Police lines should be destroyed. In any case the sooner the police lines are destroyed, the better, and new lines put up on another site, which has already been chosen.

I did not report the first two cases to you - I hoped no further cases would occur and also that I might be mistaken in my diagnosis.

I have the honour to be, Sir,

Your humble obedient servant,

F. Henderson

September '05.

M. O. F.N.C.