

1. No. 28
2. Date of 23.4.37
3. Initials of 7
M.R.O. 1-88,900-16-10-38

MADRAS RECORD OFFICE.

Government of Madras.

Public DEPARTMENT.

G.O. No.	579	Press Mis.
Dated	3-5-1918/1	

Not to be folded or roughly handled

*Proceedings of Madras Government, Public Department,
3rd May 1871.*

Read the following papers :—

No. 14. From C. W. READE, Esq., Collector of South Arcot, to the Chief Secretary to Government, Fort Saint George, dated Cuddalore, 27th March 1871, No. 23.

I have the honour to forward, for the consideration and orders of Government, a letter from my Sub-Collector making a suggestion for the supply in all districts of an antidote to snake bites, and which Government may possibly think worthy of adoption.

2. The instructions by Dr. Fayer, quoted by Mr. Sharp, will in due course be translated and circulated.

From F. R. H. SHARP, Esq., Acting Sub-Collector and Joint Magistrate of South Arcot, to the Collector and Magistrate of South Arcot, dated Kallakurichi, 15th March 1871, No. 126.

I have the honour to state that I have observed from the public press that, in some parts of the Bombay Presidency, a supply of Liquor Ammoniae is furnished to Police Stations for the treatment of snake bites, and I notice an extract in *The Madras Mail* of the 11th instant, in which instructions are given by Dr. Fayer (*quære* Fayrer) for the application of remedies in such cases.

2. I take the liberty of suggesting that Government might be asked to supply the Tahsildars, Deputy Tahsildars, Revenue Inspectors, and Station-House Officers of this Presidency with small phials of liquor ammoniae, carbolic acid, caustery iron, and cutting knife (as recommended in the extract under notice), and that the instructions issued by Dr. Fayer, or others similar thereto, might be with advantage published in Tamil in the District Gazette, and printed on separate sheets for distribution to the people. I should be glad to be furnished with 1,000 copies, if possible, for circulation.

Referred to the Inspector-General, Indian Medical Department, for his opinion as to whether it is probable that Dr. Fayrer's suggestions can be carried out by persons entirely unacquainted with surgery and medicine, and if so, what steps should be taken in this Presidency to provide the materials and instruments required at Police Stations or other Central Offices.

FORT SAINT GEORGE,
1st April 1871.

(Signed) R. S. ELLIS,
Chief Secretary.

No. 15. From Deputy Inspector-General EDWARD G. BALFOUR, Acting Inspector-General, Indian Medical Department, to the Chief Secretary to Government, Fort Saint George, dated Fort Saint George, 21st April 1871, No. 129.

I have the honour to return letter, No. 23 of 27th ultimo, from Mr. Reade, Collector of South Arcot, and also its enclosure, sent with the Order of Government, on the subject of treating snake-bite cases.

2. Surgeon-Major Fayrer's recommendations, to which Mr. Reade in his letter alludes, were published in the *Indian Medical Gazette* of the 1st February last, and are of a character such as all medical men generally follow. I subjoin a precis of them.

3. They can be carried out by persons unacquainted with surgery or medicine, and all the needed articles can be lodged in each Police Station, if Government

resolve in this course. The expense, also, from adopting that course would not be very great, perhaps about Rupees 1,000 a year. Ammonia only costs Rupee 0-2-2 per lb. landed in Madras, but about half a lb. of it would need to be lodged in each Police Station, in stopper bottles, and, from its bulk and liability to deteriorate, the cost of distributing it would be about Rupees 1,000 per annum, to supply each of the 1,667 Police Stations of this Presidency with half a pound of it. This day, however, there are only 392 lbs. of it in the Dépôt of Medical Stores, and though other diffusible stimulants are available, a supply of ammonia would need to be obtained from England, before any general action could be taken in this matter.

4. The best cutting instrument would be a common inexpensive penknife, one of 4 Annas value would be preferable to any sharp surgical knife, the use of which needs experience, while every village has a barber who can use the blunter instruments. The management of the ligature is the only delicate part of the treatment, the people are familiar with its use, but often apply it with excessive and injurious severity.

5. Perhaps the better course to adopt in trying, as in this matter, to do a general good amongst thirty millions of people of different nationalities, would be to translate, into the several Vernacular tongues, a concise Memorandum on the cure of snake bites, and print and distribute it amongst the Police Stations and Departmental Officers, and for all Departments to use their influence to induce Native Druggists and Hindoo and Mahomedan Medical Practitioners to keep a little ammonia on hand, allowing purchases of it from the Medical Store Dépôt at almost cost price. Already many of the more important drugs in use in Europe have become regular articles of sale in the shops of the Native Druggists, and I think that the population generally can only effectually be permanently reached through them.

6. If this view meets approval, I think that the subjoined precis contains all that is at present known as to the mode of treating cases of snake bite, and I submit it with a view to its translation and distribution, and if the Home Government could be asked to send out an extra supply of 800 lbs. of Ammonia general action could then be taken. In the meantime small supplies could be sent to the districts, in which the most frequent deaths occur from snake bites, and I give below a tabular statement prepared from a paper by Dr. Mair:—

Deaths by Snake bites in the Madras Presidency.

Nine Districts.		1866.	1867.	Ten Districts.		1866.	1867.
Ganjam		35	45	Nellore		106	91
Vizagapatam		41	57	Cuddapah		92	93
Kurnool		49	37	North Arcot		100	56
Bellary		49	56	South Arcot		147	162
Madras		56	70	Tanjore		252	251
Kistna		63	75	Trichinopoly		116	120
Tinnevely		71	47	Madura		159	124
South Canara		73	65	Salem		109	96
Godavery		81	68	Coimbatore		110	77
				Malabar		181	220
Total...		522	520	Total...		1,372	1,290

Also, the mungoose, if not abundant in the more infested provinces, could be imported into them.

PRECIS.

Suspend in Police Stations clear instructions how to act in case of snake bite.

2. So soon as bitten apply a ligature or cord round the limb or part two or three inches above the bite, and tighten it by means of a rack stick.

3. Scarify the punctures a quarter of an inch deep with a penknife or other cutting instrument, cutting across the punctures, or excise the part to about the size of a finger nail, and let the wounds bleed freely, and apply to the bottom of the wound a hot iron, or live coal, or some carbolic or nitric acid.

4. Ammonia—give ten or fifteen drops in water every ten or fifteen minutes.

5. Apply and tighten two or three ligatures at intervals of four or six inches above the first. If the bite be not on a finger or toe, or part where a ligature can be applied, pinch up the skin, and cut out a circular piece as big as a finger nail and about quarter or half inch deep, and apply hot coal or hot iron to the bottom of the wounds, or drop in carbolic or nitric acid.

6. Give to a grown up person an ounce of hot arrack or brandy, or rum or whiskey in an ounce of water every ten or fifteen minutes.

7. Send at once for medical aid, or take the bitten person to the nearest medical man; should no medical man be near, if no symptoms of poisoning have appeared, the ligature should be relaxed, lest the part mortify.

8. If symptoms of poisoning do appear do not relax the ligature till the person be recovering from the poisoning, or until the parts be cold and livid.

9. Suction of the wounds is likely to be beneficial, but it may be dangerous to the operator.

10. If symptoms of poisoning set in apply mustard poultices, or liquor ammonia on a cloth over the stomach and heart, continue the stimulants, and give the patient fresh air freely.

11. Do not make the patient walk about, or fatigue him.

(Signed) EDWARD G. BALFOUR, Dy. Insp.-Genl.,
Acting Inspector-General of Hospitals.

No. 16. ORDER THEREON, 3rd May 1871, No. 579.

Ordered accordingly that a special indent for 800 lbs. of Ammonia be sent to the Home Government, and that Dr. Balfour's Precis be forwarded to all Collectors for translation into Tamil, Telugu, Hindustanee, Malayalam, and Canarese, and distribution widely through their districts.

2. The paper will also be published in the District Gazettes, and a supply of copies will be furnished to the Police.

3. The Acting Inspector-General, Indian Medical Department, will, as proposed by him, take steps for distributing, where most required, such quantities of Ammonia as can be spared from his present stock.

(True Extract.)

Acting Chief Secretary.

To the Acting Inspector-General, Indian Medical Department.

„ Inspector-General of Police.

„ Collector of

Exd. J. Wright.

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(By Order.)

Secy., Surgeon-General,

MADRAS. 2

CHIEF OFFICE OF THE INSPECTOR-GENERAL OF POLICE

o. 1.566

To

THE ACTING INSPECTOR-GENERAL OF POLICE,

THE INSPECTOR-GENERAL OF HOSPITALS,

INDIAN MEDICAL DEPARTMENT

Fort Saint George.

SIR, — I am in reply to your letter No. 3307, dated 14th instant, calling attention to your No. 142,

Enclosures eight.

...n for the cure of snake bites.

ore. | Chingleput.

2. The statement, which is still incomplete, has been accepted by the Council of the League of Nations, and the League of Nations has been asked to take action on it.

3. The original reports from the Districts as per margin are enclosed.

I have the honor to be,

Si

Your most obedient Servant,

C. L. HIGHMOOR, Captain,

For Acting Inspector-General of Police.

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40. *Sci. Mag.*, 1911, p. 579.

Nos. 14-16.

Nos. 14-16.

Providing that a special grant for 800,000,000 taels was approved by the Home Government, and assuming, as required for the treatment of cases of plague, he sent to the Home Government, arranged by Dr. Pathan's Project on the subject, the forwarding of all collections for translation into the Yenchuen language, and distribution widely through the country.

Statement of District Reports on the use of Ammonia for the cure of Snake bites.

District.	Number of cases in which ammonia was applied.	Number of successful cases.	Number of unsuccessful cases.	Remarks.
Ganjam	..	..	..	States that no instance of the use of ammonia is recorded hitherto, but information, by means of Notices in the Gazette and otherwise, was widely conveyed through the District, that ammonia is available at all Police Stations on application.
Vizagapatam ..	..	..	..	Informes that ammonia has not been used in the District, and no one bitten by a snake has appeared for treatment.
Jeypore	..	..	..	States ammonia has been distributed lately among the stations and no opportunity for its employment has occurred hitherto.
Krishna	..	..	..	The liquor ammonia supplied for the cure of snake bites has not as yet been used in this District.
Nellore	18	14	4	States that in almost all cases the punctures were not scarified, but ammonia was internally administered in doses from 11 to 30 drops according to the age of the patient, and further states that in two instances the patients were brought quite insensible and hopeless, but the application of ammonia in strong doses at short intervals brought round the patients wonderfully.
Kurnool	13	12	1	Reports that in 12 different Police Stations 421 drops of ammonia were expended for thirteen persons bitten by snakes and 285 drops for 30 persons bitten by scorpions. Of the thirteen persons bitten by snakes one only met with unsuccessful result. The patients in five of the 13 cases were said to have been bitten by one or other of the following snakes :—Neerakatoo, Jerripothoo, Thoottypoorgoo, Poolipunjarum, and Ruktapinjarum.
Bellary	..	..	..	Reports that no opportunity has occurred of testing the efficiency of ammonia, although the medicine was duly distributed. Deaths from snake bites are confined to Villages too far to admit of timely efforts being made.
Cuddapah	8	8	..	Reports that since the receipt of ammonia in the District, there were only eight cases of snake bites and all were treated successfully by the use of this antidote.
North Arcot ..	2	1	1	States that there was but one case for which ammonia has been used in the manner directed, but without effect. In other cases of snake bites the persons bitten by snake were dead before the information could reach the Police.
Chingleput ..	6	6	1	States that from the report collected the information of persons bitten by snakes is generally brought to the Police after death, and that full reliance cannot be placed on the description of snake said to have bitten the persons successfully treated.
South Arcot ..	..	..	..	Reports that ammonia is about to be distributed to Police Stations and it was not sent before for want of printed instructions.
Tanjore	..	..	..	Informes that liquor ammonia has not been used in this District.
Trichinopoly ..	..	..	..	Gives merely the names of stations to which ammonia has been supplied, but no account of its use.
Madura	1	1	..	Reports that ammonia was used only in one case with successful result, but the snake was not destroyed.
Tinnevely	1	..	1	Reports that in one of the Divisions the medicine was applied to one Koravan by caste and a Snake-charmer by profession, but attended with no success, as the case was reported after poison had taken full effect, and there was no occasion for the use of the medicine in other Divisions.
Coimbatore ..	2	1	1	States that ammonia has been used only in two cases.
Malabar	6	4	1	Reports that ammonia was used in five cases of snake bites, one of which proved fatal.
South Canara ..	1	..	1	Reports that there was a case reported in which a boy was bitten by a snake at 8 A.M., the information was received at 12 noon, and the Head Constable arrived at the place at 1.30 P.M., by this time the victim's jaw was fixed and no medicine could be forced into his mouth, nor the wound could be scarified.
Salem District ..	3	3	..	Reports that he only had occasion to use ammonia at three of his Divisions. The first case of snake bite occurred in the town of Salem, the second at Trichengode, and the third at Uttingherry Division. All cases were treated successfully.
Godavery District ..	4	3	1	Reports that ammonia was administered only in four cases, and all these at Dowlaishtweram, where there is a Police Station. Out of the four cases three recovered and one died. Most of the other cases occurred in villages at a distance from stations, and died before they had a chance of trying the remedy.

CHIEF OFFICE OF THE INSPECTOR-GENERAL OF POLICE,
Madras, 17th May 1873.

C. L. HIGHMOOR, Captain,
Acting Assistant Inspector-General of Police.

No 23

9

From

C. W. Beade Esqre

Collector of South India

To,

The Honorable P. S. Ellis C.B.

Chief Secretary

to Government

Fort St. George

Sir,

I have the honor
to forward for the consideration
and orders of Government a
letter from my Sub Collector
making a suggestion for
the supply in all Districts
of an antidote to snake
bites and which Government
may possibly think worthy
of adoption.

2.

The instructions
by

by Dr. Fayer, quoted
by Mr. Sharp will in due
course be translated and
circulated.

I have the honor to be

Sir

South West. Your most obed^t servant
Collector's Catching
Addalove
27th March 1871

Charles Beadle
Collector

45 B

No. 124

OFFICE OF INSPECTOR GENERAL, INDIAN MEDICAL DEPARTMENT,

Fort Saint George, 1st April 1861.

From

Inspector General Edward Balfour

Inspector General, Indian Medical Department,

Fort Saint George.

To

The Chief Secretary to Government
Public Department
Fort Saint George.

Sir,

I have the honor to return letter N^o 23 of 27th ultimo, from Mr. Reade, Collector of South Arcot, and also its enclosure, sent with the order of Government, on the subject of treating snake bite cases.

2. Surgeon Major Fayer's recommendations, to which Mr. Reade in the letter alludes, were published in the Indian Medical Gazette of the 1st February last, and are of a character such as all medical men generally follow. I subjoin a precis of them.

3. They can be carried out by persons unacquainted with surgery or medicine, and all the needed articles can be lodged in each police station, if Government resolve on this course. The expense, also, from adopting that course would not be very great, perhaps about Rs 1000 a year. Ammonia only costs Rs 0.2.2 per lb. hundred in

Madras

Fort St George
1st March 1861
Chief Secy
The central office
Mr. Allen Hallam is
in charge of the
the medical and
the medical and

Refers to the Inspector General's letter
Medical Department for his opinion as to
it whether it is practicable that Dr. Fayer's
treatment can be carried out by persons unacquainted
with surgery and medicine, &c. &c.
that this matter is taken in his Department to forward

27th April 1861

Letter N^o 23

From the Collection

South Arcot

To the Chief Secretary
to Government
Madras

Dated 27th March 1861

Enclosure 1

No. 577.

Forwarded for consideration & order
a letter from his
and Collection in
making a copy
of the original
to be made
into a book

Edw. Balfour

Madrid, but about 1 lb. of it would need to be lodged in each police station, in stopper bottles, and from its bulk and liability to deteriorate, the cost of distributing it would be about Rs 1000 per annum, to supply each of the 1667 police stations of this presidency with half a pound of it. This day, however, there is only 342 lb of it in the Depot of Medical Stores, and though other diffusible stimulants are available, a supply of ammonia would need to be obtained from England, before any general action could be taken in this matter.

4 The best cutting instrument would be a common inexpensive pen-knife, one of 4 annas value would be preferable to any sharp surgical knife, the use of which needs experience, while every village has a barber who can use the blunter instruments. The management of the ligature is the only delicate part of the treatment, the people are familiar with its use, but often apply it with violence and injurious severity.

5 Perhaps the better course to adopt in trying, as in this matter, to do general good, is to get thirty or forty of people of different nationalities

135-
would be, to translate into the several Vernacular tongues, a concise memorandum on the Cure of Snake bites, and print and distribute it amongst the police stations, and departmental Officers; and for all departments to use their influence to induce native druggists and Hindos and Mahomedan medical practitioners to keep a little ammonia on hand, allowing purchases of it from the Medical Store Depot at almost cost price. Already many of the more important drugs in use in Europe have become regular articles of sale in the shops of the native druggists, and I think, that the population generally can only effectually be permanently reached through them.

6 If this view meet approval, I think that the appended précis contains all that is at present known as to the mode of treating cases of snake bite, and I submit it with a view to its translation and distribution, and if the Home Government could be asked to send out an extra supply of

into them.

I have the honor to be
Sir

Your most Obedient Servant

Edward Malfour W. G. G.
Acting Inspector General
Indian Medical Department

Pres.

- 1 Suspend in Police stations clear instructions how to act in case of snake bites.
- 2 As soon as bitten, apply a ligature or Cord round the limb or part, 2 or 3 inches above the bite, and tighten it by means of a rack stick.
- 3 Scarify the punctures a quarter of an inch deep with a penknife or other cutting instrument, cutting across the punctures, or excise the part to about the size of a finger nail, and let the wounds bleed freely.

Uo 800 of ammonia, general action could then be taken. In the meantime small supplies could be sent to the districts, in which the most frequent deaths occur from snake bites, and I place in the margin a tabular statement prepared from a paper by Dr. Mair.

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9 Districts	1866	1867	10 Districts	1866	1867
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Godavary	81	68	Coimbatore	110	77
			Malabar	181	220
Total	522	520	Total	1372	1290

Also the mungorse, if not abundant in the more infested provinces, could be imported into

freely, and apply to the bottom of the wound a hot iron, or live coal, or some Carbolic acid or nitric acid.

4 Ammonia, give 10 or 15 drops in water, every 10 or 15 minutes.

5 Apply and tighten two or three ligatures at intervals of 4 to 6 inches above the first. If the bite be not on a finger or toe, or part where a ligature can be applied, pinch up the skin, and cut out a circular piece as big as a finger nail and about $\frac{1}{4}$ or $\frac{1}{2}$ inch deep and apply hot coal or hot iron to the bottom of the wound, or drop in Carbolic or nitric acid.

6 Give to a grown up person an ounce of hot arrack or brandy or rum or whiskey in an ounce of water every 10 or 15 minutes.

7 Send at once for medical aid, or take the bitten person to the nearest medical man, should

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no medical man be near, if no symptoms of poisoning have appeared, the ligature should be relaxed, lest the part mortify.

8 If symptoms of poisoning do appear, do not relax the ligature, till the person be recovering from the poisoning, or until the parts be cold and livid. Junction of the wound is likely to be beneficial, but it may be dangerous to the operator.

10 If symptoms of poisoning set in, apply mustard poultices, or liquor ammonia on a cloth over the stomach & heart, Continue the stimulants, and give the patient fresh air freely.

11 Do not make the patient walk about, or fatigue him.

I
Edw. M. Alford W. Esq.
As Inspector General of Hospitals

No. 2,408.

CIRCULAR.

MEMORANDUM.

In the year 1865, Surgeon Shortt, M.D., Superintendent-General of Vaccination, Madras, commenced a series of experiments in the hope of discovering an antidote for the cobra poison. He offered a purse of 500 rupees to any one who would satisfactorily prove to him the cure of three snake bitten animals. His Highness the Maharajah of Travancore, on hearing of Dr. Shortt's offer, supplemented the purse by 1,000 rupees, and it was still further added to by His Highness Prince Rama Vurmah, the first Prince of Travancore, who offered Rupees 250, making in all a purse of Rupees 1,750 available for the person who would produce an antidote to the cobra poison.

2. These offers attracted attention in nearly every part of the world, and Dr. Shortt received numerous packets of antidotes, each of which he tried.

3. Early in the year 1868 he carefully experimented with the Liquor potassæ and ascertained, that it possessed the power of neutralizing and destroying the virulence of the cobra poison. It completely failed when employed in the form of hypodermic injections, and on throwing solutions of the potash into the veins, failures attributable to the caustic action of the potash when brought into contact with the living tissues, and the large quantity of the weak solution necessary to be injected. In January 1870, however, a man who had been bitten by a cobra was brought to Dr. Shortt. The wound was sucked, and some of the poison removed, a ligature was put round the wounded limb, and about 5 to 10 minutes after the bite potash was given internally, dissolved in brandy. Since then Dr. Shortt has successfully treated a second case of cobra snake bite

No.

From

The Inspector General,

Indian Medical Department,

Fort Saint George

To

The Adjutant General

of the Army,

Fort Saint George

Dated

21st April 1871

Received

22nd April 1871

Pub 1871. Sept

10/5/71

To be read & signed by
the Sub-Inspector of
Police at the
Cantonment

by potash and brandy, and he has furnished this Office with a Memorandum of Instructions as to the mode of conducting the treatment, copy of which is subjoined. Executive Medical Officers who may have opportunities of testing Dr. Shortt's method will be good enough to report the results to this Office, through the usual channel.

(By Order.)

G. BIDIE, M.B., Surgeon,
*Secretary to Inspector-General,
Indian Medical Department.*

OFFICE OF INSPECTOR-GENERAL,
INDIAN MEDICAL DEPARTMENT, }
Fort St. George, 19th May 1871.

To

All Medical Officers.

TREATMENT FOR SNAKE BITE.

WHEN a person is bitten by a poisonous snake, the wound should be sucked out immediately, and a ligature be applied tightly above the wound, so as to arrest the rapid absorption of poison into the system.

2. After the wound has been sucked, it should be well washed with water, but a weak sol. of potash would be preferable (3i of liquor potassæ to a bottle of water) and the pure liquor potassæ be freely applied to the wound after.

3. For safety's sake, an additional ligature or two might be put on at short distances from the one already placed above the wound, and that no time should be lost, the middle string or "*unacavooroor*" might be taken for the purpose, if the Patient is a native.

4. If a knife is at hand the wounds caused by the fangs should be opened out to the extent of a quarter of an inch, ere suction is commenced.

5. There is always a risk in sucking a poisoned wound, more especially that caused by a cobra, and to reduce this to a minimum and not risk two lives, the Patient himself should be urged to suck the wound when it is situated in the extremities to which he can readily have access.

6. Before a second person is allowed to suck a poisoned wound, he should be apprised of the risk he is likely to encounter by the operation, and the mouth of the Operator should be well washed out frequently with a weak solution of potash, of the strength given in paragraph 2.

7. Should it not be feasible for the patient to suck the wound or to get another person to do it for him, the wounded part should be freely cut out and cupping glasses applied and the wound be allowed to bleed freely, and then be washed and have the potash applied. If not at hand any other glass if well exhausted over the flame of a lamp, or by burning a few drops of spirits in the glass, or bottles emptied rapidly of boiling water (which suck well when their mouth is applied) may be substituted with advantage.

8. The large veins congested by the ligatures should be opened out by a lancet, and be allowed to bleed freely, and to facilitate bleeding, the part should be immersed in warm water containing liquor potash (3i to a gallon of water) and should the bleeding become profuse the wound should be closed with pledgets of lint and bandage, and cold potash and water of the same strength be substituted for the warm.

9. The ligatures should not be removed for 4, 6, or 8 hours (according to circumstances), and till the ligatures are removed the immersion of the part in the potash bath should continue, at the same time it should be remembered, that if the ligatures are continued for any length of time, mortification of the part below it may ensue.

10. The Patient should have as soon as possible after he has been wounded, half a dram of liquor potassæ in 2 or 3 ounces of brandy. In the absence of the potash, the brandy alone should be given at once till the potash arrives, and half a dram of liquor potassæ with an ounce of brandy be given the Patient every 15 or 20 minutes, until he is brought under the influence of the brandy, and its effects be maintained by prolonged doses for 12 hours at least, according to the circumstances of the case, the brandy with the view of supporting the nervous system and the potash to eliminate the poison from the blood.

11. The Patient should at the same time be well supported with nourishments (the natives prefer conjee).

12. Should the action of the poison on the system be fully developed when the Patient is brought under treatment, the wound should without delay be freely cut out to some extent, and cupping glasses

be applied to the part, and the treatment detailed above be carefully carried out, in these cases enemas containing brandy and potash should be administered at the same time, so as to bring the Patient rapidly under its influence.

13. Should the Patient complain of thirst he may have as much water as he may like to drink containing (a dram of potash to the bottle of water).

14. Subsequent treatment to be carried out according to the exigencies of the case, small doses of brandy and potash should be continued for a day or two, three or four times a day.

15. The wound should be treated according to its state and appearance, and on general principles usual in such cases.

16. In fact, in cases of snake poison, the Surgeon must be prepared to act with great promptitude and decision, and be full of resource, not to waste time, but turn every thing he can lay hands on, for the advantage of the Patient in the hope of saving his life.

The following mixture might be kept in readiness in places where snake bite is of frequent occurrence.

Liquor Potassæ ʒiiss.
Brandy one bottle.

Mix

One ounce with water for a dose, every 15 or 20 minutes, according to the exigency of the case.

(Signed) JOHN SHORTT, M.D., Surgeon,
Supt.-General of Vaccination.

MADRAS,
the 8th Feb. 1870. }

Public Department.

PROCEEDINGS of the MADRAS GOVERNMENT.

Read the following letters.

From collector of South Arcot dated 24: March 1871. No 23.
From the Inspt. Genl. Indian Med. Dept. of 21: April 1871. No 129.

Order thereon 3rd May 1871. No 579.

Ordered accordingly
that a special indent for 800
lbs of Ammonia be sent to the
Home Government and that Dr.
Rafferty's price be forwarded
to the Government for
for translation into Tamil
Telugu Hindustani Malay.
and Sanskrit.
The paper with a copy of the
report to be forwarded to the
Secretary to the Government
and a copy of the report
to be forwarded to the
Secretary to the Government.

They had better
make their own
arrangements.
in Dr. Rafferty's
offer the Government.

Dr. Shortt's method of treatment
of snake bite by potash and brandy
recommended for trial report.

of which will be submitted
repts.

3. The Acting Inspector
General ^{Ind. Dept.} will as proposed by
him take steps for distribu-
ting where most required
such quantities of Ammonia
as can be spared from his
present stock.

L.R.

The Sup. Genl. Indian Med. Dept. }
- Sup. Genl. of India }
- All Collections }
- Comm. Nat. Hall }
- Translations to Government.

app 8/5

Bot. of 1871 during

Public

To the Sup. Court. 1871. H. S. Webb

Dated May 1871, No. 579.
Recd.

Nos. 14. 16.

Meeting that a share!

which for 80000 of thousands,
required for the treatment
of cases of smallpox, the
cost of the House of, and
that of 23, 100, and 1000 on
the subject of the "House of",
122, 100, 100, 100, 100, 100,
into the House of, 100, 100,
and distribution with, 100,
then, 100, 100.