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MADRAS RECORD OFFICE. *f*

Government of Madras.

Public **DEPARTMENT.**

G.O. No.	1378	Press
		Mis.
Dated	7-8-	19 18.7/

Not to be folded or roughly handled

14.5.01

No. 1378.

FROM

THE HON. R. S. ELLIS, C.B.,
Chief Secretary to the Government of Fort St. George,

TO

THE SECRETARY TO THE GOVERNMENT OF INDIA,
HOME DEPARTMENT.

SIR,

With reference to your letter, dated the 27th June last, No. 3150, I am directed to transmit copy of a letter* from the Inspector-General, Indian Medical Department, forwarding a communication from Surgeon J. Shortt, who has for many years paid attention to the treatment of snake bites.

* Dated 28th August 1871, No. 282.

I have the honour to be,

Sir,

Your most obedient servant,

Captain, R. E.,

Under Secretary, P. W. D.,
for Chief Secretary.

OOTACAMUND,

7th September 1871.

From the Acting Inspector-General, Indian Medical Department, to the Chief Secretary to Government, Fort St. George, dated Fort St. George, 28th August 1871, No. 282.

I have the honour to report to the Right Honourable the Governor in Council that, on receipt of Professor Halford's pamphlet on the treatment of snake bites, I forwarded it to Surgeon Shortt, M.D., who for the past twenty years has been conducting continuously experiments on this subject, and I beg to forward his remarks on the pamphlet. As the subject is of very great importance, meriting the fullest publicity, I have the honour to recommend that Dr. Shortt's remarks be printed and circulated.

From Surgeon JOHN SHORTT, M.D., Superintendent-General of Vaccination, Madras Presidency, to the Secretary to the Inspector-General, Indian Medical Department, Fort St. George, dated Madras, 21st August 1871, No. 911.

I have the honour to acknowledge the receipt of the Proceedings of the Madras Government, G. O., dated the 3rd August 1871, No. 1170, with a pamphlet on the treatment of snake bite by the injection of liquor ammonia into the veins by Professor Halford, of the University of Melbourne, forwarded for my opinion.

2. I beg to state that I have been long interested in the treatment of snake bite, and, with the view to the discovery of an antidote, I have been and still am testing all reputed remedies sent to me for the purpose.

3. From the ancient repute that ammonia and its preparations have had as an antidote, I tested it repeatedly and carefully on several occasions in the following manner:—

- I. By mixing liquor ammonia with the cobra poison and injecting it hypodermically into animals.
- II. By injecting liquor ammonia itself hypodermically into snake-bitten animals.
- III. By administering the liquor ammonia by the stomach and bowels to snake-bitten animals.

IV. By the injection of liquor ammonia as suggested by Professor Halford into the veins of snake-bitten animals, and I regret to state that, notwithstanding the utmost care and repeated experiments on the lower animals, the ammonia failed completely to restore such animals to life.

4. In addition to the various experiments conducted by myself at different times and places, on the 14th January at my house in Madras, before Dr. Mackenzie, the late Inspector-General, Indian Medical Department, and some twenty Medical Officers, and at the Madras Medical College Theatre, on the 29th January 1870, in the presence of most of the Professors of the College, several Medical Officers, students and other gentlemen, I demonstrated to their satisfaction I believe by experiment on animals the complete failure of the liquor ammonia as an antidote by injection into a vein.

5. My experience of the liquor ammonia as an antidote by injection into the veins is simply confined to the lower animals, as I have not had the opportunity of testing it in man; but the uniform evidence given of its success by some twenty medical men after trial on the human subject in Australia, as given in this pamphlet, startles me at the miraculous cures said to be effected, as moribund patients have not only recovered, but were upon their legs able to partake of food and walk off to their houses after recovery from the snake poison in an incredibly short time.

6. Dr. Halford in the pamphlet alluded to enters largely on the hypothetical action of ammonia in the human system, and, however ingenuously argued, this is a mere matter of theory, and into which it is not my province to enter, as I prefer confining myself to practical facts—the result of my personal experiments.

7. The result of my experiments on the poisoned blood in testing it, both physically and chemically, proves that the poison enters the system and destroys the integrity of the blood in snake-bitten animals when they have been fairly bitten, and a due proportion of poison injected into the wound, and any antidote to prove effective must be capable of overtaking the poison in the blood, as it circulates in the living system and there neutralize it chemically, for this is the only way in which both facts and experiments tend to confirm.

8. The liquor ammonia has universally been used as a diffusible stimulant generally, and, therefore, recommended in snake poison; but, as far as my personal experience extends, it does not seem to be of any particular value, as I consider brandy a more reliable remedy from being a powerful stimulant it tends to support the system where freely administered, and rapidly enters the circulation, rouses up the nervous energy rendered dormant by the poison, and admits of time for the administration of a chemical remedy, should such exist.

9. Dr. Halford states at page 11 of his pamphlet that, "Ammonia and brandy thrown into the system is not absorbed;" this is contrary to my experience in the cases that have come under my immediate notice; I have had no difficulty in bringing the system under the influence of brandy by frequent doses administered by the mouth and bowels where necessary, so as to bring the snake-bitten patient rapidly under its influence, and at page 18, Dr. Halford admits "that liquor ammonia has no chemical action over snake poison."

10. It further strikes me that if even the ammonia really proves so valuable a remedy, the injection of it into the veins can be undertaken by very few non-professional persons in the absence of a Surgeon, as they will not possess the nerve or the skill to free a vein and introduce the nozzle of a syringe into it, and it is stated that "the parts slough if the ammonia be spilt."

11. Liquor ammonia and brandy has been fairly tested in the human subject for the snake bite, and the hypodermic injection of the ammonia also, but it has never as yet been injected into a vein, this has yet to be tried in man whilst it completely failed in the lower animals, not only in my own experiments, but in that of other medical men in Calcutta.

12. In conclusion, I would remark with reference to that part of Dr. Halford's experiments as given in the above pamphlet where the ammonia was injected into the heart of dogs, not only to prove its innocuousness, but also its power of counteracting the narcotic effects of chloroform, that these experiments appear to me inconclusive, as the animals were not permitted to live sufficiently long to ascertain any deleterious action the liquor ammonia may have produced on them; this is absolutely necessary ere pronouncing so confident an opinion as that given by Dr. Halford.

Home 1871 Dept.

From Government of
Fort St. George.

Dated 7th Sept. 1871. No.
R. Enclosure
Spare copies

D. No. D.
L. No. 1378. Proc. No.

Forwarding a letter from Dr. Shortt containing
his opinion of Professor Halford's pamphlet on the
treatment of snake bite.

No. 282.

OFFICE OF INSPECTOR GENERAL, INDIAN MEDICAL DEPARTMENT,
Fort Saint George, 28th August 1871.

From

The Acting Inspector General, Indian Medical Department,
Fort Saint George,

To

The Chief Secretary to Government
Public Department

SIR,

I have the honor to report to the
Right Honorable the Government
Council that, on receipt of Professor
Halford's pamphlet on the treatment
of snake bites, forwarded to Surgeon
Shortt M. D., who for the past twenty
years has been conducting continu-
ously experiments on this subject,
and they to forward his remarks
on the pamphlet. As the subject
is of very great importance, merit-
ing the fullest publicity, I have
the honor to recommend that
Dr. Shortt's remarks be printed
and circulated.

I have the honor to be
Your Obedt Servt
Cawar Mahow M. D.
Acting Inspector General
Indian Medical Dept.

Office of Supt General of Vaccination
 Madras Presidency
 Madras The 28th August 1871
 From The Supt General of Vaccination
 Madras Presidency
 To The Secretary, Inspector General
 Indian Medical Department
 Fort St George

Sir I have the honor to acknowledge the receipt of The Proceedings of the Madras Government - G.O. dated the 3rd August 1871 - 101170 with a pamphlet on the treatment of Snake bite by the injection of Liq^{re} Ammonia into the veins by Professor Ralford of The University of Melbourne forwarded for my opinion.

I beg to state that I have been long interested in the treatment of Snake bite and with the view to the discovery of an antidote I have been, and still am testing all reputed remedies sent to me for the purpose.

From S. N. 277 Sept 11 1871
 Indian Department

To Inspector General,
 Indian Medical Department,
 Fort Saint George,

Dated 28th August 1871
 The Supt General of Vaccination
 Madras Presidency

No. 282

1st 1852

Forwarded to the Secretary
 to the Indian Medical Department
 Madras Presidency
 and the Government
 of Madras

3. From the ancient reports that
Ammonia and its preparations
have had as an antidote
I tested it repeatedly and
carefully on several occasions
in the following manner:
I. By mixing Liq^d Ammonia
with the Cobra poison and
injecting it hypodermically
into animals.

II. By injecting Liq^d Ammonia
itself hypodermically into
snake bitten animals.

III. By administering the Liq^d
Ammonia by the stomach
and bowels to snake bitten
animals.

IV. By the injection of diluted
Ammonia as suggested by
Professor Haldord into the
veins of snake bitten animals,
and I regret to state that
notwithstanding the utmost
care and repeated experiments
on the lower animals the
Ammonia failed completely
to restore such animals to life.

In addition to the various
experiments conducted by

myself at different times and
places, on the 14th January at my
house in Madras, before ^{Dr. McKenji}
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Medical Department, and
some 20 Medical Officers, and
at the Madras Medical College
Theatre, on the 29th January 1890,
in the presence of most of the
Professors of the College, several
Medical Officers, students and
other gentlemen, I demonstrated
to their satisfaction I believe
by experiment on animals the
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Ammonia as an antidote by
injection into a vein.

My experience of the Liq^d Ammonia
as an antidote by injection
into the veins is simply confined
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province to enter
as I prefer confining myself to
practical facts the result of my
personal experiments.

7. The result of my experiments on
the poisoned blood in testing
it both physically and chemically
proves that the poison enters the
system and destroys the integrity
of the blood in snake bitten animals
when they have been faintly bitten,
and a small proportion of poison
injected into the wound, and any
antidote to prove effective must
be capable of overhauling the poison

the poison in the blood, as it
circulates in the living system
and there neutralize it chemically
for this is the only way in which
both facts and experiments
tend to confirm.

The Liquor Ammonia has universally
been used as a diffusible
stimulant generally, and therefore
recommended in Snake poison
bit, as far as my personal experience
extends it does not seem to be of
any particular value, as I consider
it is a more reliable remedy

from being a powerful stimulant
it tends to support the system
where freely administered, and
rapidly enters the circulation,
rouses up the nervous energy rendered
dormant by the poison, and admits
of time for the administration
of a chemical remedy, should
such exist.

Dr. Halford states at page 11 of his
Pamphlet that, "Ammonia and
Brandy Thrown into the system
is not absorbed," This is contrary
to my experience in the cases

- that have come under my immediate notice, I have had no difficulty in bringing the system under the influence of Brandy by frequent doses administered by the mouth and Bowels where necessary, so as to bring the Snake bitten patient rapidly under its influence, and at page 18 Dr. Halford admits that Lig^t Ammonia has no chemical action over Snake poison.
10. It further strikes me that if even the Ammonia really proves so valuable a remedy the injection of it into the veins can be undertaken by very few non professional persons in the absence of a Surgeon, as they will not possess the nerve, or, the skill to pierce a vein and introduce the nozzle of a Syringe into it, and it is stated that the parts stung if the Ammonia be spilt.
11. Lignor Ammonia and Brandy has been fairly tested in the

the human subject for the Snake bite, and the hypodermic injection of the Ammonia also, but it has never as yet been injected into a vein, this has yet to be tried in man whilst it completely failed in the lower animals not only in my own experiments but in that of other Medical men in Calcutta.

12. In conclusion I would remark with reference to that part of Dr. Halford's experiments as given in the above Pamphlet where the Ammonia was injected into the heart of dogs not only to prove its innocuousness but, also its power of Counteracting the narcotic effects of Chloroform, that these experiments appear to me inconclusive, as the animals were not permitted to live sufficiently long to ascertain any deleterious action the Lig^t Ammonia may have produced on them, this is absolutely necessary ere pronouncing so confident an opinion as

as that given by Dr. Halford.

I have the honor to be
Sir.

Your most Obedient Servant

Wm. H. H. Surgeon.

Supt. Genl. of Vaccination
U. S. President.

Sept 14/9

Public Department.
No. 1378.

17

To
The Secretary to Government
of India,

Home Department.

Sir,

With reference to your
letter dated the 27th June
last No. 3150, I am direct-
ed to transmit copy of
a letter from the Inspector
General Indian Medical
Department forwarding
a communication from
Surgeon J. Shortt, who
has for many years paid
attention to the treatment
of snake-bites.

18

Let me know if
it is to be sent to you

Not recommended
7 Sept. 1871.

Editor's table - 21/9

11/10/1871

1871

From
The Right Hon^{ble} Secy to Govt of
India

To
The Secy to Govt of India

W. H. D. D. D.

For the Secy

Resd. 21/10/1871

Enclosure

By order of the Secy

Resd. 21/10/1871

1871

1871

187, Department

No.

To
The Secretary to the
Government of
Department

Dated 187

28-29

c. 4-9.

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Home 187. Dept.

From Government of

Fort St. George.

Dated Aug. 7

1871

No.

Enclosures

spare copies.

R.

D. No.

7-7

Progs.

(11.

L. No. 1578.

(No.

Nos. 28-29.

Forwarding a letter from
Dr. Short containing his
opinion of the proposed
Pamphlet on the treatment
of Snake bite.