

THE SUCCESSFUL APPLICATION OF PREVENTIVE
MEASURES AGAINST BERI-BERI. A REPLY TO
THE CRITICISMS OF DR G. A. O. TRAVERS.

LETTER RECEIVED FROM
DR HAMILTON WRIGHT.

LONDON SCHOOL OF TROPICAL MEDICINE,
17th October, 1905.

(*To the Editor of the Journal of Hygiene.*)

SIR,

Please permit me to reply as briefly as possible to Dr Travers' letter regarding beri-beri which appeared in the last number of the *Journal of Hygiene* (vol. v. p. 536).

Dr Travers had no control whatever over the Kuala Lumpur Gaol as regards beri-beri from February, 1900, to February, 1903. From February, 1900, when I arrived in the Federated Malay States to study beri-beri, to February, 1903, when I left, the gaol was wholly under my control for experimental, clinical, post-mortem and other observations. This special position was granted me by the Government in a series of enactments and decisions.

Dr Travers is wrong as to the number of the hygienic measures which were carried out on my recommendation. All of the purely hygienic measures were put in force either to the letter or in principle. There were several recommendations which aimed at a radical reconstruction of the gaol which were not carried out. They would have been, however, had I advised the Government that they were absolutely necessary.

He concludes that, "As none of the altered cells were occupied until the end of January, 1903, by which time beri-beri had practically disappeared from the gaol, the improvement of ventilation can have had but little effect in causing the decrease in the number of cases of the disease." The cells alluded to by Dr Travers were amongst those which I had proved beyond dispute to be most highly infected. That they were not occupied for several months was therefore a most potent factor in the decrease and disappearance of beri-beri from the gaol.

Paragraphs 11 and 13 of Dr Travers' letter refer to quotations cut from their context, and so placed that the reader is misled.

My statement was that, "The gaol has been thoroughly disinfected several times." The gaol was four-fifths thoroughly washed with formalin in February, 1902, notwithstanding Dr Travers' ignorance of the fact, as evidenced by his dependence on a verbal statement made by the gaoler over two years after the event. In the following May there began another disinfection on my recommendation and under my general supervision. As I was about to leave Kuala Lumpur, I thought that I might leave the execution of this to Dr Travers. I was mistaken however. I found on inspection of his work that he had mixed the perchloride solution in tin cans. That the bottoms dropped from the cans, and that a plentiful supply of free mercury was precipitated, did not warn him of the defect in the method.

On inquiry, I found that on a former occasion, December, 1897, Dr Travers had disinfected the gaol in a similar fashion. In the May disinfection I corrected his method and saw that the disinfection was efficiently carried out until February, 1903. Since that time I have had to rely on Dr Daniels for information. Writing from Kuala Lumpur on September 24th, 1904, Dr Daniels states, "The disinfection is done cell by cell, and when they have worked through the gaol they start afresh. Practically this means that each cell is disinfected every six months or so, but may be longer or shorter. This was the account given me by Galloway. Travers gives the same account."

My statement that the gaol has been thoroughly disinfected several times holds good.

In paragraph 15, and the following, Dr Travers takes issue with me in regard to the personal hygiene of the prisoners. He quotes (paragraph 16) my description of the arrangements which he devised for defaecation etc., while he was in control of the gaol, and denies its correctness. He writes (paragraph 17) :

"Each prisoner has a small tin pail fitted with a tin lid in which he defaecates and urinates, he is also provided with a box of dry earth to cover up the faeces in the pail and with the thin sticks of wood described by Dr Hamilton Wright."

It will be noticed that according to Dr Travers no provision whatever is made for the personal cleanliness of the prisoners. This was the deplorable truth and what I myself observed and stated. No provision was made by Dr Travers for the personal cleanliness of the prisoners. They however circumvented him, and, as I stated, by using

the small sticks and finally their fingers. The act was completed when the prisoners had wiped their fingers on the floor and blankets.

I have eighty-nine separate and distinct statements by beri-beric prisoners that this was their practice. I confirmed it by personal observation. It will be readily credited when it is recalled that, before the hygienic measures which I recommended were put in force and beri-beri thereby stamped out, there were never less than fifty prisoners in the gaol whose wrists and hands were partially paralysed. Personal cleanliness on the part of the prisoners was not possible under the defective methods permitted by Dr Travers.

In paragraph 19 of his letter Dr Travers states that the defect in personal hygiene has not been corrected. Were this true it would be a grave admission on the part of Dr Travers. For I specially recommended that, "A system be adopted that will allow the prisoners to evacuate their bowels and bladder outside the cells." But it is not true. The defect has been corrected. In addition the prisoners no longer eat their meals in the cells. On May 2nd, 1904, Dr Daniels wrote me, "The prisoners confined in cells are allowed during the day to pass their evacuations outside the cells, and the remainder working in the sheds pass them outside the cells except at night. All meals except the evening meal, 5 p.m., were partaken of outside the cells up to January 22nd, 1904. Since April 9th, 1904, all meals have been taken outside the cells." Dr Travers is still ignorant, it would seem, of the routine of the gaol.

You will recollect, Mr Editor, that in the original article which I sent you on, "The Successful Application of Preventive Measures against Beri-beri," I entered very fully into the modification and application of the hygienic principles which I recommended for the control of beri-beri. You intimated that the article was too detailed and so reconstructed it to suit the *Journal*. I consented to that reconstruction. No fact was shaded, no conclusion strained. On re-reading my original and the reconstructed article, I see no reason whatever to do more than reaffirm my facts and conclusions in regard to beri-beri.

Yours truly,

HAMILTON WRIGHT,
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[This discussion is herewith concluded. *Ed.*]