

analgesia by eucaïne. I have never seen it. My own condition after an injection of about 8 ozs. of Barker's solution, was rather one of depression than of excitement.

Colchester,  
August 7th, 1907.

I am, &c.,  
F. J. W. PORTER,  
Major, R.A.M.C.

### THE INCUBATION PERIOD OF BILHARZIA DISEASE.

TO THE EDITOR OF THE "JOURNAL OF THE ROYAL ARMY MEDICAL CORPS."

DEAR SIR,—In a recent number of the JOURNAL OF THE ROYAL ARMY MEDICAL CORPS, vol. vi., No. 2, 1906, a letter appeared from Dr. F. M. Sandwith, in which he asked for any information regarding the incubation period of Bilharzia disease. I have lately come across some notes which may perhaps be of value in throwing some light on this still uncertain question.

When at Pretoria in 1903, being anxious to obtain some definite information on this subject, I asked the medical officer of the 8th Hussars, Dr. Abercrombie, to make some observations on recently-arrived drafts, and he very kindly supplied me with the following facts, all of which he carefully verified. The regiment was then encamped on the slope of a hill at Daspoort, near Pretoria, below which ran a stream called Skinner's Spruit, in which the men frequently bathed.

Certain rivers in the Pretoria district are responsible for a large number of cases of Bilharzia disease, notably the Apies river, into which this Spruit runs. During the war many cases of this disease occurred among men living in the blockhouses above the river. It is interesting to note that the infection is probably only obtained from running water, such as streams or rivers.

Out of a draft of 206 men of the 8th Hussars, who arrived in the camp from England in November, 1902, six cases occurred between that date and July, 1903, and in a draft of thirty-five men who arrived in December, 1902, there was one case, as shown in the table below:—

Case	Age	Service Years	Date of Arrival in South Africa	Date of reporting sick with Bilharzia ova in the urine	Interval between arrival and reporting sick	Remarks
1	20	1	9.11.02	1.2.03	12 weeks	
2	20	1	9.11.02	17.2.03	14 "	
3	20	1	9.11.02	6.3.03	4 months	
4	21	1	9.11.02	19.3.03	4 "	
5	20	1	9.11.02	20.3.03	4 "	
6	23	3	9.11.02	6.7.03	7 "	Gives a history of four months' duration.
7	16	1	4.12.02	19.6.03	6½ "	Gives a history of three days' duration.

These drafts came out to South Africa direct from England, and on landing were at once moved up to Pretoria. None of them had had any previous foreign service, being with one exception lately recruited, so that no previous infection seemed possible. All these affected men were known to have bathed in, and in some cases to have drunk from, the Spruit below the camp. Of the six cases occurring in the draft of 206 men arriving in November, one reported sick with ova in the urine twelve weeks after arrival in Pretoria, one after fourteen weeks, three after four months, and one after seven months; but in the latter case the man asserted that he had had the disease for about four months before reporting sick. Among these cases, where there is no possible doubt that the disease could only have been contracted during a residence, at the most of seven months, in an infected district, the incubation period was shown, in one case at least, to have been not more than twelve weeks.

I am, &c.,

W. W. O. BEVERIDGE,

Major, R.A.M.C.

London,

August 3rd, 1907.

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### WANTED, AN EXPLANATION.

TO THE EDITOR OF "THE JOURNAL OF THE ROYAL ARMY MEDICAL CORPS."

SIR,—There are two points in Colonel Forman's paper and in his later letter that are, I think, of some special interest; first, the absence of mosquitoes; and second, his remark that "fish never eliminated mosquitoes anywhere, and never will." It is a curious but interesting fact, well known to occur in all orders of insects, that certain species in their distribution are sometimes prone to be extremely local for no apparent cause. This has been remarked on by Wallace, and discussed in his work, "Darwinism," though, as I am away from a library, I am unable to give the exact reference. To give a familiar example: the swallow-tail butterfly (*Papilio machaon*) is confined in England to the Fen district of Cambridgeshire, though across the Channel and throughout its enormous geographical range, it is a common garden insect, like our cabbage whites. This narrow distribution in England is not due to the local growth of the food plant, which is the wild carrot and fennel, both of common occurrence throughout the Southern counties, at any rate. Again, in the smaller moths (Micro-lepidoptera) it is not unusual to find a species common, or perhaps abundant, on one particular bush, and not a specimen on any other to all appearance precisely similar in the whole district. It is difficult to account for such extreme cases, but so far as my experience goes, it generally occurs in species which are at the geographical limit of their distribution, and where, to maintain even a precarious existence, they have to seize upon every factor of a favourable