

## Clinical and other Notes.

### NOTES ON CASES OF BILHARZIA HÆMATOBIA COLLECTED AT THE ROYAL HOSPITAL, CHELSEA.

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THE number of men invalided for Bilharzia hæmatobia up to the end of December, 1911, reached 626.

The first cases were invalided in 1888, 2 cases, and there were no others until 1900, 1 case; in 1901, 4 cases; in 1902, 94 cases; in 1903, 273 cases (the maximum). The number of fresh cases then dropped rapidly, being 13 in 1907, and in 1910 and 1911, 5 and 3 cases respectively.

Of the total 626 cases, 267 cannot be any longer traced for the following reasons: 54 were given "permanent" pensions, 45 were given "final" awards, 66 have been struck off the pension list for "absence," 4 for "felony," 3 for "re-enlistment" (these were held to serve, being apparently well), 30 due to "deaths," and after repeated medical examinations, 65 have been struck off the list as apparently recovered.

We have, therefore, 359 cases still being carefully examined every six or twelve months.

It is satisfactory to note that, quite apart from the good outlook, so few fresh cases are being found, and there has been a steady lessening in the total number remaining on the pension list. At the end of 1906 we had 480 on the list; at the end of 1909, 414; 1910, 387, and at the end of 1911, 359. I think we may also take it that the cause of a great many of the cases of absence (66) may be that the men consider that the disease has left them, which usually means they no longer pass blood in their urine, and that the lumbar pain has gone, otherwise most of them would have come up for examination with the view of getting their pensions renewed. All this seems to point to the eventual disappearance of the disease.

With the exception of four, all the 626 cases originated in Africa, and all these, with the exception of the "Nile" case, came from South Africa.

A short statement about the above four cases, and the one from the Nile basin, may be of interest:—

*Case 1* was supposed to have contracted the disease from "drinking river water while up the Nile on leave" in 1900. He was never in South Africa, nor had he served in any other foreign station. Ova and blood were first noticed in March, 1901. He was last seen in November, 1905; he was then passing a large number of ova. This case is worth recording

because of the curious fact that he is the only invalid for this disease among all the British troops that have served in the Nile basin during so many years. Sir Patrick Manson mentions in his book "Tropical Diseases," that Dr. Bilharz, who discovered the cause of the "endemic hæmaturia" of Egypt in 1851, considered Bilharzia to be present in one half of the population of that country.

*Case 2.*—Blood and ova were first found in February, 1904. He had then been in Hongkong only one month, and had come direct from England. He had never been in Africa or India or any other foreign station. He had been a miner near Wolverhampton up to the time of his enlisting in May, 1903. Ova continued to be found in his urine each year up to October, 1907, since when the man cannot be traced.

*Case 3.*—Ova were first seen at Poona, in February, 1906. He was invalided in April of the same year. He had only been in India three months when the ova were first found. He left India in April, 1906, and was examined in England in September, and the following note was made: "Ova, blood and albumin in the urine. Very anæmic and has effusion into both knee joints." He was again examined in March, 1908, his urine being then apparently normal. He had never been in Africa or any foreign station, except for the three months in India. Unfortunately this man too cannot be traced.

*Case 4.*—Ova first found in August, 1903, at Mian Mir. He had never been in Africa, but had served between 1899 and 1903 in India, at Chakrata, Peshawar, and Deolali, besides Mian Mir. He was last examined in June, 1911, on which occasion, and for the previous five years, no ova or blood could be detected. In 1904 it was noted that he had "well-marked malarial cachexia."

*Case 5.*—Ova and blood were said to have been found at Norwich in January, 1905. He was invalided in February, and in May he was re-examined, and no ova were found. He enlisted in Norwich in December, 1903, and was never out of England. Since May, 1905, nothing has been heard of him.

Cases 2 and 3 could hardly have contracted the disease at their stations—Hongkong and Poona respectively—could they not have contracted it on the voyage, either at a port or perhaps, but improbably, on their ships?

I fancy Cases 4 and 5 were possibly wrongly diagnosed.

The two earliest cases of invaliding (the 1888 cases) were first seen in 1886. One occurred in Natal and the other in Zululand. The Natal case was last seen in 1890, when he was still suffering from the disease. The second case was last seen in 1908 and was then passing ova.

It is interesting to note the causes of death as far as they have been reported to us, and as this list is defective I think it best to give it in full:—

	Date of invaliding	Date of death	Cause of death
1.	1902 ..	7.2.10 ..	"Consumption," "Phthisis Pulmonalis."
2.	" ..	20.2.10 ..	"Anæmia and Cardiac Distress."
3.	" ..	3.5.11 ..	"Laryngitis" "accelerated by chronic lead poisoning."
4.	1903 ..	27.6.03 ..	Not known. (Last note 22.12.02, "Severe cystitis, blood and pus in urine.")
5.	" ..	7.10.03 ..	Not known. (Last note 11.4.03, "Cystitis; blood and pus and ova in urine.")
6.	" ..	27.12.04 ..	"Cerebral Gumma," "Meningeal Hæmorrhage."
7.	" ..	1.8.05 ..	"Pneumonia" ("Anæmia, pain in back and bladder.")
8.	" ..	7.10.06 ..	Not known. (Last note 12.12.06, "Great debility, blood and albumin in urine.")
9.	" ..	14.12.06 ..	"Fibroid Phthisis."
10.	" ..	2.11.07 ..	"Acute Obstruction of the Intestines."
11.	" ..	31.12.07 ..	"Diphtheria."
12.	" ..	18.4.08 ..	"Dementia," "G.P.I." (died in Asylum).
13.	" ..	20.12.08 ..	"Pulmonary Phthisis," "Anæmia and Debility."
14.	" ..	16.10.10 ..	"Phthisis Pulmonalis."
15.	" ..	1.6.10 ..	"Tuberculosis (General)," "Spinal Caries," "Abscess of Lungs."
16.	" ..	6.5.11 ..	"Phthisis."
17.	1904 ..	18.4.04 ..	"Acute Gastritis," "Hæmatemesis," "Syncope," "Cystitis."
18.	" ..	4.5.04 ..	Not known. (Last note, 11.1.04, "Weak and Anæmic.")
19.	" ..	19.12.04 ..	"Pneumonia," "Cardiac Failure."
20.	" ..	27.2.07 ..	Not known. (Last note, 28.12.06, "Ova and blood present.")
21.	" ..	9.5.09 ..	"Drowned," accidentally.
22.	" ..	19.7.10 ..	"Inflammation of veins of eyes and brain."
23.	" ..	23.6.11 ..	"Pulmonary Phthisis."
24.	1905 ..	30.3.06 ..	"Syncope" "following anæmia and exhaustion, due to Bilharzia Hæmatobia."
25.	" ..	18.2.08 ..	Not known. (Last note 17.1.07, "Ova, very debilitated; hæmorrhage from rectum.")
26.	" ..	29.3.08 ..	"Heart Failure."
27.	1906 ..	22.3.07 ..	"Nephritis."
28.	" ..	9.4.07 ..	(a) "Carcinoma of Bladder" (b) "Syncope."
29.	" ..	4.2.09 ..	"Uræmic Convulsions," "Bright's Disease."
30.	1907 ..	15.2.10 ..	"Abscess," "Cerebral Compression."

From the character of the diseases generally that have been the certified causes of death, there seems little doubt that Bilharzia has in most cases been a great factor in producing the debility and anæmia that was the possible precursor of the fatal illness.

I have "six-monthly" or "annual" notes on almost all the cases, and I have been struck by the debility and low standard of health that is really present in the majority of them. To all appearance these men may

look quite healthy, indeed it is often stated that they appear "robust," though at the time they may be passing a fair amount of blood and ova in the urine. However, they almost all complain of lumbar pain, which is increased on stooping, and which frequently prevents them doing ordinary labouring work. Their appearance, therefore, characterized often as "healthy-looking," "stout," "robust," has to be very much discounted as otherwise we may sum up their present condition very unfairly.

Up to the present we have been baffled in our attempts to cure this disease and though evidence of cure by time is shown in the statistics that I have been able to collect at Chelsea, still this is a slow process and not creditable to us as doctors. As to the question of "cure," up to now we can only say "we hope so."

Cases have been in hospital for months under careful observation and treatment, but so far, in spite of all we could do, we have had no success. We have, however, lately made great advances in the treatment of many other diseases, and are we to be beaten by this comparatively large inhabitant of the blood-vessels? Could we not do more than we are doing in the countries where this disease is so common? We should probably have a better chance abroad, though at the same time we must not neglect those cases we are paying so heavily for at home, and who may be spreading the disease in our own country, though fortunately we have no evidence of it.

The cost to the State per annum of those men still remaining on the "conditional" pension list on account of this disease—that is of 359 cases—is about £6,400. An additional sum of £1,400 per annum has already been allotted as "permanent" pensions.

*Note.*—Since writing the above, four fresh cases of invaliding for Bilharzia have come to hand (March 7th, 1912). Two of the cases apparently originated at Rosehill, in Mauritius, in January, 1911. The disease is common in Mauritius, though up to the present we have had no soldiers invalided from there. Both these men had served in South Africa for more than two years immediately before going to Mauritius, though in their cases the history strongly points to the disease originating in Mauritius. The other two cases come from Egypt. The first case has twenty-one years' service, and according to his statement he has been passing blood in his urine since September, 1898. He first noticed blood when in Alexandria, having just returned from Omdurman. He served in Egypt from December, 1894, to December, 1898. He is now 39 years of age; complains of incontinence of urine, and is passing ova in large quantities, also blood and albumin. The second case noticed blood in his urine in Cairo in October, 1911. He had served in Egypt since February of that year. He is now passing a large number of ova and much blood in his urine.

The first case from Egypt is perhaps an answer to my statement concerning the only case up to the time of writing the above notes that we

have had of the disease originating in the Nile basin. It suggests the possibility that many cases may have occurred, but because of the trivial nature of their symptoms, they have either not noticed their condition or not thought it worth troubling about.

I think Lieutenant-Colonel Simpson's remarks and his quotations from Major Smith's report on this disease, on pp. 664-7 of the December number of the *JOURNAL OF THE ROYAL ARMY MEDICAL CORPS*, 1910, should be re-read with these few notes of mine.

#### QUININE AS A MALARIAL PROPHYLACTIC AND CURATIVE.

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IN a recent article ("Quinine as a Malarial Prophylactic; a Criticism," *JOURNAL OF THE ROYAL ARMY MEDICAL CORPS*, November, 1911) Captain P. S. Lelean questions the use of quinine as a prophylactic against malaria. I think most medical officers in India must be very disappointed with the results of the use of quinine for this purpose. In many of the most malarious stations quinine has been used for several years, yet the disease still continues with unabated force, especially in bad years such as 1908. I was always very sceptical myself of quinine as a prophylactic, but was partly converted when I read Ross's book on "Malaria," where the results of this practice in Italy are given. When the number of deaths from malaria, checked by European doctors, falls from nearly 16,000 in 1900 to 3,000 in 1908, and there is a corresponding fall in the admissions both amongst the civil and military population, brought about entirely by the use of quinine, one cannot help thinking there must be something in it.

Possibly, the reason for the success in Italy compared with that in India is in their method of administering the drug. In India it is difficult to get the troops to parade every day, so generally quinine is given twice a week; also the insoluble sulphate is the salt usually administered, while in Italy soluble salts like the bisulphate are given in doses of  $6\frac{1}{2}$  to 10 gr. every day according to the prevalence of malaria in the locality.

It is generally considered that parasites are most easily killed by quinine in their early stages, so the Italian method of dosage should be the better, especially if the quinine is given just before dusk in order that it may be present in the blood at the most likely time of infection. The daily use of quinine is also the method recommended by Ross, and I think it well worthy of a more extended trial in India.

In conjunction with this subject the long continued use of quinine as a curative of malaria is worth consideration. There is no doubt that quinine is a specific for malaria while an attack is in progress, but whether