

that there is an evident disposition at the present day to look upon this as a secondary extension along the lymphatics and across the obliterated pleural cavity to the apex of the lung from a primary bacillary infection of the tonsil or œsophagus. Tuberculin both in diagnosis and treatment has during the year inspired several papers, and minute attention has been directed to all the factors on which successful treatment depends. Of the other diseases of the lungs pneumonia fills the largest space.

Diseases of the heart occupy a large section of the book, among the most important papers being one by Keith and Flack on the auriculo-ventricular bundle, and others on the Adams-Stokes syndrome. Hypertension has been illumined among others by Elliott in America, and by Oliver and Adami in England.

For the rest the most valuable papers reviewed are upon influenza, many of these appearing in a single number of the 'practitioner;' on ex-ophthalmic goitre which appears to have attracted attention chiefly in England and in America, on Addison's disease and on diabetes.

The book contains two misprints, fig. 18 is inserted upside-down, and the formula of Mist. Sodæ c. Æther. Chlor. of the Brompton pharmacopœia is incorrect. Neither is of much moment. The volume gives an excellent selection from papers published during the year, and fully maintains the usual high standard of the series.

Correspondence.

"QUININE BIHYDROCHLORIDE V. QUININE BISULPHATE."

To the Editor of "THE INDIAN MEDICAL GAZETTE."

DEAR SIR,—I am afraid, I am introducing a well worn subject, but as I am not satisfied in my own mind about the matter, I trust that you will publish this letter in the hope that it may raise a correspondence which may prove instructive to me.

I have always been in the habit of injecting the Bihydrochloride of Quinine in severe cases of Malaria. Lately I have come across a medical man who avers that it is a useless salt of Quinine and that the only salt of any use for injection is the Bisulphate of Quinine.

Now, from what I can remember of the Physiology of the Blood, I should have thought that the Bisulphate was a much more foreign salt to the plasma than the Bihydrochloride. As far as I can remember the plasma contains Chlorides in abundance, but Sulphates are conspicuous by their absence. Also, judging from Capt. McCay's work, I should have thought that the sulphates of Quinine on being injected would be transformed into the chlorides, Sodium Sulphate being formed in the interchange which would speedily be eliminated. If this is the case then surely it would be better to start with the Chloride salt straight away. My informant also stated that absorption was much greater when the salt was injected subcutaneously than when injected intramuscularly. But surely change and interchange in the blood is much greater in muscular tissue than in connective tissue.

Trusting that the two points raised in my letter about which I should like trustworthy information, will be the means of bringing into correspondence the "verba magistri."

GOVERNMENT HOUSE,
OOTACAMUND.
The 10th June, 1909.

I remain,
Dear Sir,
Yours faithfully,
T. HAY BURGESS, M.B., F.R.C.S.,
CAPT., I.M.S.

"BLACKWATER FEVER AND QUININE."

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—With reference to Capt. McCay's researches into the action of sulphates and chlorides on the blood and his practical deductions therefrom for the prevention of blackwater fever, I think the following notes may be of interest.

In March, 1907, I was called to see a patient suffering from blackwater fever. He was an old planter, and gave the usual history of having had a lot of low fever not properly treated, and the previous night had taken ten grains of Quinine Sulph. He had a very bad attack, but recovered, no quinine was used until after the urine was clear and then only $\frac{1}{2}$ grain tonic doses of Quinine Sulph. He then returned to Burmah and suffered again from malaria, which was treated by hypodermic injections of 5 grain doses of the bihydrochloride.

Since then he has been quite well until the 10th May, when he had another go of ague which was treated by Quinine hydrochlor. grs. x t.d.s. for two days and moderate doses continued for a week. He had no more than one day's fever and left off taking his quinine after a week.

On May 26th he felt "achey" in the morning, but passed perfectly normal looking urine. He came in from work feeling feverish, and took ten grains of Quinine Hydrochlor. and went to bed about 11 A.M., at 11-15 he passed clear urine. He then had a slight rigor, and at 1-30 P.M. his temp. was 104.4. He was given aspirin grs. x and almost immediately afterwards (before the aspirin could have been absorbed) he passed very dark colored urine. I saw him at 7-30 that evening and he was then sweating profusely—temp. 102.6, pain in epigastrium and over the liver, urine a deep claret colour. I gave him grs. v of calomel, and hourly doses of Liq., Hyd. Perchlor 3 grs. and Sod. bicarb. grs. x. At 7 A.M. next morning his urine was clear but contained a trace of albumin. No quinine was given. At 10-15 A.M. his temp. was 99.8 and he passed reddish muddy coloured urine. By the evening this had cleared up and next morning, the 28th, there was not even a trace of albumin. For the following three days he had slight rises of temperature, but the urine remained normal, and he is now quite well.

This patient has therefore had Hæmoglobinuria after grs. v Quin. Sulph. and also after grs. x Quin. Hydrochlor. but a much milder attack, and has twice had fever without Hæmoglobinuria once treated by bi-hydrochloride hypodermically and once by the hydrochloride by mouth.

BISANAOUTH MEDICAL OFFICE

PAUTA PUKHURIE,

MEJICAJAN P. O.,

BISHNATH.

Assam, 6th June, 1909.

I am

Yours faithfully,

F. C. McCOMBIE, M.B.,

LONDON.

"CASE FOR DIAGNOSIS."

To the Editor of "THE INDIAN MEDICAL GAZETTE."

SIR,—I should be glad of an opinion through your paper on the following case. A Hindu girl, aet. 20, became unconscious from charcoal fumes, just after her confinement, and received a burn of the third degree, and about 12 by 6 inches in size. It was dressed with cow-dung and ashes, as is the custom here. Four weeks later she was brought to the Hospital, suffering from fever and anæmia, the dressing having remained unchanged since it was first applied. Tm. 98 to 101. P. 84 to 96. R. 18 to 20. Urine Sp. G. 1018 normal quantity, no alb. Six days later, the general condition had much improved, the patient ate well, slept well, p. 70 to 80 and of good quality, wound clean with healing edges. On the next day, the dressing was done at 9-30 A.M., and her condition was as usual, causing no anxiety. After the dressing the patient's bed was taken out into the court-yard by her relations. Ten minutes later she was found unconscious, and she died the same night without recovering consciousness. Is it possible that death can have been due to the burn? Condition at 10 A.M., pt. unconscious, cornea reflex almost absent. Pupils equal, neither dilated nor contracted. T. normal, R. 20, shallow, regular. P. 62, good volume regular. Some white fluid, apparently milk, was running out of her mouth, and the muscles of her face were twitching. Poisoning was suspected, it is not uncommon here, especially when a girl is likely to be sick for some time. The stomach tube was applied, and the washings kept for examination. Vomiting began one hour later, then spasms of the muscles, especially of the arms, which were repeatedly raised above the head. There was no paralysis, and no diarrhœa. After 4 P.M., the pulse began to fail, becoming faster and weaker, by 9 P.M., it was imperceptible, and the patient expired at 11-30 P.M.

The case was taken up by the police and a *post-mortem* examination was made. Nothing was found abnormal in the brain, lungs, heart or kidneys. The liver and spleen were slightly congested. At the pyloric end of the stomach there were numerous small patches of congestion and of hæmorrhage and a few also in the first two inches of the