Clinical and other Notes

Although, perhaps, not strictly coming within the scope of this article, the author desires to put in a plea for the greater use of the syringe in treatment in the Army. Every year, more and more drugs are being put up in forms suitable for injection. In the author's opinion the advantages greatly outweigh the slightly disagreeable nature of the treatment. The dosage is more certain and more easily controlled, the action quicker and there is less likelihood of digestive disturbances than when given orally. As an example, cases at this hospital when convalescent after fevers, etc., are given a tonic of glycerophosphates, cacodylates of soda and strychnine sulph., subcutaneously, and their period in hospital and absence from duty greatly shortened in consequence.

I am greatly indebted to Colonel W. H. S. Nickerson, V.C., C.B., C.M.G., D.D.M.S., B.T. in E., and Colonel H. Ensor, C.B., C.M.G., D.S.O., R.A.M.C., S.M.O., Abbassia, and O.C. Officers' Hospital, for obtaining authority for the local purchase of the drugs used and for permission to publish these notes.

PRELIMINARY REPORT ON THE RESULTS OF INVESTIGATIONS INTO THE CAUSATION OF BLACKWATER FEVER IN SOUTHERN RHODESIA.

PRESENTED TO THE LEGISLATIVE COUNCIL, 1923.

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In all parts of the world where pernicious malaria is rife, blackwater fever occurs. On the other hand, in those countries where only benign tertian occurs, blackwater fever is unknown. Clinically, pernicious malaria in Southern Rhodesia varies enormously. In one type, the clinical symptoms may not be severe, but the disease is active, more or less chronic, with gradually progressive anæmia. A more or less continual hæmolysis goes on; the liberated hæmoglobin is dealt with by the liver and converted into bile pigments, and during this stage the only manifestations of free hæmoglobin are biliousness, anæmia and bilirubin in the urine. There is at this stage of the malaria no hæmoglobin in the urine, but bile may occur simulating blackwater. All these cases of pernicious malaria of a chronic character might suitably be termed pre-blackwater.

An analysis of the hospital statistics for Southern Rhodesia for the ten years ending 1922 shows 6,608 admissions for malaria, and 492 for blackwater fever; the curves of these two diseases conform very closely, rising and falling together in a striking way. The worst months for blackwater fever are April, May and June, as it is during these months the full effects of malaria occur, and the sudden drop in the incidence of blackwater during the months of July, August and September corresponds in a remarkable manner with the diminution of malaria and the disappearance of mosquitoes.
In all the cases (23) of blackwater fever examined before the onset of hemoglobinuria *Plasmodium falciparum* was found in the blood. With the onset of hemoglobinuria the parasites usually disappeared in one or two days. Many cases examined after the onset showed no parasites in the peripheral blood, but all post-mortem examinations obtained in such cases showed definite evidence of malaria.

No difference could be detected in cultures of parasites from cases of malaria and blackwater fever.

Crescents are comparatively rare amongst adult natives and adult Europeans, but are extremely common amongst native children and also in young European children. Out of 100 native children whose blood was examined on one occasion almost 40 per cent showed the presence of crescents. By far the most important carriers of malaria are therefore the children, an important point in reducing the malarial incidence.

The remarkable co-relationship of the incidence of malaria to blackwater fever, and the parasitic findings, together constitute overwhelming evidence that the causal organism of blackwater fever is the pernicious type of malarial parasite.

**INTRODUCTORY LECTURE DELIVERED TO THE CLASS OF MILITARY SURGERY IN THE UNIVERSITY OF EDINBURGH, MAY 1, 1855.**

**By Sir George Ballingall.**

*Regius Professor of Military Surgery.*

(Continued from p. 302.)

With reference once more to this "civil element," for which we are indebted to his Grace the Duke of Newcastle, I would observe, that the expression is somewhat indefinite; and as we are not told how far it is to be carried in the re-organization of the medical department, I would say that if this element must be introduced into the department, it should be at the bottom, not at the top of the tree. I wonder what civil element actuated Larrey when he killed the spare horses of the officers to make soup for his men. This you will allow was a most uncivil proceeding; but for this, Napoleon made him, on the instant, a Baron of the Empire. The highest prize in the medical department ought to be accessible to the youngest assistant surgeon who enters the service; and a very paltry prize it is for this great country to hold out to the Chief Medical Officer of its army.

1 From an old book kindly lent by the late Dr. George Ballingall, St. Leonards-on-Sea.