

### 5. Psycho-Pathology.

*Family Hatreds in Mental Pathology* [*Les Haines Familiales en Pathologie Mentale*]. (*Ann. Med.-Psych.*, April, 1926.)  
Robin, Gilbert.

The author limits the discussion to the more severe and dangerous hatreds such as one finds in the case of the mother suffering from a toxic exhaustive psychosis, the persecuted paranoiac and certain schizophrenics. He points out the necessity of determining whether the hatred is a causative or a secondary phenomenon. As an example of the latter case he instances the schizophrenic who takes a dislike to certain members of his family, for the reason that they are the people who try to rouse him from his preoccupation. On the other hand, there is the importance of the œdipus and the electra complexes, involving, as they do, a jealousy and hatred of the rival parent.

As regards treatment, he advocates firstly the elimination of any possible physical factor as in the toxic exhaustive group. For others a certain degree of separation from the family—at all events while treatment is being carried out. For those cases where the cause of the hatred is not manifest to the patient he urges that the situation in its entirety should be laid before him. In difficult cases of phobias, in obsessions, and even in schizophrenia he advises the employment of psycho-analysis. D. EWAN CAMERON.

### 6. Pathology.

*Some Observations upon Carbohydrate Metabolism in Malaria, with Special Reference to the Effect of Insulin and Glucose upon Benign Tertian Malaria.* (*Journ. of Trop. Med. and Hyg.*, March 1, 1927.) Rudolf, G. de M., and Marsh, R. G. B.

**SUMMARY.**—(1) When single specimens of urine from each case were examined, glycosuria was found in 0·9% of untreated general paralytics, but in 15·4% of those who had been treated with benign tertian malaria.

(2) Glycosuria was present in 90% of treated paralytics when the urine was examined on numerous occasions.

(3) Blood-sugar curves following the ingestion of glucose tended to approach the normal after inoculation with malaria, and also between febrile paroxysms, but these observations were made on only two cases.

(4) During malarial therapy the blood-sugar was found to vary inversely with the temperature. The subsequent rise in the blood-sugar does not necessarily take place steadily, and the final level after the temperature has fallen may be higher than the level before the pyrexia.

(5) The administration of glucose during malarial pyrexia produced no obvious change as regards the objective signs, but apparently relieved of the subjective symptoms. No effect upon the parasites was observed.

(6) The administration of insulin during malarial therapy produced indefinite effects as regards the number of parasites, but in 60% of instances the fever terminated after insulin had been given. Relapses followed, but differed from those following small doses of quinine in having a degree of pyrexia.

(7) It is inadvisable to give insulin if there is a possibility of a rise of temperature shortly after.

J. R. LORD.

*Enumeration of Parasites in Therapeutic Malaria.* (*Journ. of Trop. Med. and Hyg.*, January 1, 1927.) Rudolf, G. de M., and Ramsay, J. C.

Parasites enumerated by two different observers working independently were found to vary considerably in numbers in the peripheral blood-stream during the course of malaria in general paralytics.

In thirteen out of fourteen cases a decrease in the number occurred between the stages of sporulating and half-grown forms, and in ten out of the fourteen an increase in number took place as the parasites grew from young rings to older intra-corporal forms. The decrease and the increase were not constant in each patient. As development proceeded from half-grown to ring forms a decrease occurred in 97.9%, an increase in 2.1%. As development proceeded from ring to half-grown forms a decrease in numbers occurred in 24.8%, an increase in 60.9% and no change in 14.3%. For these calculations the assumption has been made that each sporulating parasite produces only ten merozoites, although the number is usually stated to be from fifteen to twenty. Despite this low estimate in a very high percentage young forms are not even ten times as numerous as the forms from which they originated. No doubt a number of the small rings would be overlooked, and few, if any, of the larger forms, but the difference in the number of parasites is too great for this to be the only explanation in many cases. The decrease in numbers as the parasites pass from three-quarter grown forms to sporulate and become small rings corresponds with the general biological law that where the mortality is high large numbers of eggs or young organisms are produced (see J. Arthur Thomson). The number of merozoites from each schizont is comparatively large, and so a high death-rate would be expected. This is what is found.

The cause of the increase in number as the parasites develop from the ring to the half-grown stage is obscure. Possibly, the older forms emerge from the internal organs; or numbers of merozoites take an abnormally long time to develop, or perhaps a combination of both occurrences is the correct explanation. In Case 3 a decrease in the number of different forms of the parasites took place just before and during the fever, and an increase occurred after the fever. If all the parasites disappeared into the internal organs, to reappear later, none should be found in the peripheral blood during the pyrexia; and yet they can be found. Whether the parasites enter the internal organs temporarily, whether some