2nd.—That in very many cases the dejecta are deranged from their normal condition.

3rd.—That by far the most successful treatment is a dietetic and antiseptic one directed towards the intestines; and that the fever vanishes as the intestinal disorder ceases, while *the converse does not hold.*

4th.—That the continuance of the actual fever depends upon the septic condition of the intestinal lesions, almost entirely, being due possibly to the extravasation of some poison unknown to me, from the intestines into the blood.

5th.—That, in conclusion, the vast majority of Indian fevers are not primary blood diseases at all, but originate in the intestines.

These points I have already endeavoured to elucidate in this paper by means of cases, though I despair of being able to present the delicate analysis so as to influence the opinions of others. I wish now merely to suggest their possible importance in the hæmatozöic theories. My conclusions are in no way inimical to the theory of the existence of one or more kinds of micro-organisms in the blood, being simply opposed to the blood-proliferation theory. The possibility of the extravasation of micro-organisms from the intestines into the blood, as into the liver, is very apparent, and the prevalence of intestinal complications largely admitted. The assumption that all or any fevers, even intermittents, are necessarily primary blood fevers, has received no conclusive proof; and it is clear that where there is any local lesion whatever, the non-dependence of the fever upon the lesion must first be demonstrated.

I will, therefore, venture to ask Surgeon-Major Ranking (whose November paper on the subject is before me), whether there were intestinal complications in his cases, and, if so, whether he has any reasons for considering that the hæmatozöon was or was not derived from the intestines. I would further ask those who maintain the blood-proliferation theory to explain the frequency of intestinal complications, as well as the well-known benefit derived from a laxative and dietetic treatment. Some serious explanation also of the frequently virulent worm-fevers is desirable in this connection. It is evident that the whole validity of the supposed hæmatozöic test for malaria depends upon whether or not the micro-organism may enter from intestinal lesions; a point which, as it is of the utmost importance in treatment as well as in etiology, *must* be investigated sooner or later.

I am, &c.,
R. ROSS, I.M.S.,
Surgn.-Capt.

BANGALORE,
15*th November* 1892.

INDIAN FEVERS.

TO THE EDITOR, "INDIAN MEDICAL GAZETTE."

SIR,—The question raised by Surgeon-Captain Ross in the paper which he has lately contributed to the *Indian Medical Gazette* appears to me to resolve itself simply into this, that fevers in India are mainly due to ptomaïne poisoning from intestinal sepsis, and cannot be held to be dependent upon proliferation in the blood of any parasitic organism.

To this I would, in response to Dr. Ross's enquiry, state that in my experience the large majority of cases of malarial fever exhibit little or no intestinal derangement, and I am not in a position from my own observations to endorse the views of the etiology of Indian fevers, which he puts forward in the paper under consideration.

It is an undoubted fact that wherever we have any such intestinal complications as Dr. Ross mentions, we shall get a febrile reaction which appears in most cases, so far as my own experience goes, to be in direct proportion to the amount and extent of the intestinal lesions; but this is not sufficient to uphold the rather sweeping assertion that "the vast majority of Indian fevers originate in the intestines." Dr. Ross's third conclusion appears to me to be antagonistic to the views he puts forward. He says "The fever vanishes as the intestinal disorder ceases, while *the converse does not hold.*" The italics are his own.

That is to say, that when the intestinal mischief is over, the fever will vanish: but that it is by no means so sure that the intestinal mischief will clear up when fever has ceased. Surely, if Dr. Ross's view were the correct one this latter case should be an impossible event. If the intestinal lesions be, as he considers, the cause of the fever, there could be no cessation of the fever so long as the intestinal lesions remain unhealed. Again, the disappearance of the fever coincidently with the healing of the intestinal lesions, may be in the relation of cause and effect, but, on the other hand, they may both be the results of a common cause.

Further, the simple fact that malarial fevers are communicable by the transfusion of malarial blood, taken in conjunction with the vast proliferation of an associated organism which may be witnessed in every case of malarial fever, is sufficient to convince me personally that malarial fevers are due to an organism which elects the red blood cells as its most favorable breeding ground.

There is no reason to look to the intestine as the starting point of infection; we have the air we breathe loaded with "spores," so that the lungs afford by far the readiest path of approach for the malarial microbe.

Dr. Ross asks me to explain the "frequency of intestinal complications." I am not even prepared to admit this frequency: I would, indeed, say that intestinal complications are in my experience the exception in cases of malarial fever.

The benefit derivable from laxative and dietetic treatment requires, so far as I can see, no special explanation. The administration of a purgative is undoubtedly beneficial in cases of malarial fever by clearing out the intestine and ridding the system of any ptomaïnes or other noxious excretory products they may contain; but this is applicable to all disease of whatever kind and simply puts the patient in the best position for resisting the onset of disease. Dr. Ross appears to me to lose sight of the marked difference in the incidence of "fever" in "malarial" and "non-malarial" countries.

In both we may get "fevers" of septic origin, where, so far as we know at present, the intestine is the starting point of the disease: whereas in "malarial" infection, we get "fevers" which run their whole course with no intestinal symptoms whatever; while the blood is found loaded with an organism which may be seen to develop there, and in developing destroy the red blood cells, literally killing the blood. Surely we are justified in attributing the febrile reaction in these latter cases to the organism, which we know to be parasitic, and peculiar to the blood of those who have been exposed to malarial infection.

The febrile reaction of "worm-fevers," alluded to by Dr. Ross, seems to me beside the mark, as no one will deny that intestinal irritation may set up febrile reaction.

Even granting the dependence of the febrile reaction in intestinal cases, such as enteric fever upon the intestinal lesions, we have still to get behind this, and enquire what is the ultimate cause of the lesions. Do not they and the "fever" possibly own one common exciting cause? I hope I have not exceeded due limits in this letter.

Your obedient servant,
GEORGE RANKING, M.D.,
Surgeon-Major.

A CURIOUS CASE OF VICARIOUS HÆMORRHAGE.

TO THE EDITOR, "INDIAN MEDICAL GAZETTE."

MINGUEL RODRIGUES, coppersmith, aged 36, was in the habit of occasionally having his vein opened at Goa. After coming here he abstained from doing so for about 3 years. The consequence was he had an attack of epistaxis and hawking up of blood. I tried astringent remedies, not knowing the cause, but was completely unsuccessful. On his hinting to me about his habit, I concluded that this was a case of vicarious hæmorrhage. Venæsection was performed on both sides. The result was—complete success. It appears that, as a rule, the residents of Goa undergo the operation at least once a year. There are professional blood-letters whose fee is half a tanga (8 pies).

Yours obdtly.,
B. COLACO,
Civil Apothecary, Kasaragod.