A CORRESPONDENCE CIRCLE.

VIII.

RESEARCH ON THE COMMONER TROPICAL DISEASES.

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There is hardly one aspect of clinical importance even in the commoner diseases of the tropics, which does not require reinvestigation. It is too commonly assumed that research work in tropical disease is necessarily confined to the laboratory investigator, but this is by no means so, and in these notes I shall attempt to suggest the lines on which such investigations should proceed. I need hardly point out that officers in the Royal Army Medical Corps, especially those serving in India, are favourably placed for making observations of great importance on the treatment of disease, and that in the JOURNAL OF THE ROYAL ARMY MEDICAL CORPS they will always find a ready means of publication of their results.

MALARIA.

I.

Observations are required upon the exact mode of action of quinine upon the malaria parasites, especially as to the reason why this drug should act more efficaciously upon the subtertian parasite than on the benign. My own observations go to show that the more acute the onset of a subtertian infection and the more numerous the parasites, the more readily does the infection yield to quinine in the accepted therapeutic doses and the less liable it is to relapse. In fact I am of the opinion that genuine relapses of subtertian malaria after efficient quininization are extremely rare.

II.

The absorption rate of quinine does not appear to be proportional to the action of this drug upon the malaria parasites. More observations are necessary to ascertain whether intravenous injections of quinine can completely eradicate a benign tertian infection during a primary attack of this fever. It is quite possible that this is so.

III.

Certain French authorities have recently claimed that stovarsol (acetyl-oxy-aminophenyl-arsinic acid) has a specific action on the malaria parasite. This drug which contains twenty-seven per cent of arsenic must be given with caution and in moderate doses, or else signs of arsenical poisoning are apt to occur. So far stovarsol has been given in tablet form of four grains each day by the mouth for ten to fourteen days on end. One would
suggest that the intravenous injection of stovarsol in the same dosage should be given a trial in benign tertian malaria, and the effect controlled by systematic daily blood examinations. Possibly, however, the effect of stovarsol upon the malaria parasite may be comparable with that of salvarsan and it may act most efficaciously when combined with moderate quininization.

IV.—Diagnosis.

More exact methods than those at present in use are required to diagnose latent malaria, when neither the parasites nor the characteristic pigment can be found in the blood on microscopic examination. The proportional count of large mononuclear cells is too uncertain a factor and too dependent upon the "personal equation" of the observer to be of much permanent value. The discovery of a specific complement deviation reaction would be of inestimable value. The difficulty mainly rests in the preparation of a satisfactory antigen. Attempts in this direction which have been made with extracts from spleen pulp infected with malaria parasites in fatal cases have not been successful; nor is this surprising considering the amount of non-specific proteins such an alcohol extract must contain. Some years ago I attempted to obtain a specific antigen from an alcoholic extract of the stomach of anopheles infected with oöcysts of the malaria parasite; a considerable, but not insurmountable, difficulty may be experienced in obtaining a sufficient number of infected insects. This piece of research should be much more easily carried out in countries such as India, where suitable anopheles and malaria-infected patients are easily obtained and the conditions are favourable for the development of the malaria parasite within the mosquitoes. Possibly a watery or saline extract of the oöcysts may be more active than an alcoholic one. At any rate, it is extremely probable that some specific complement-deviation reaction occurs in chronic malaria as in other chronic protozoal blood infections.

DYSENTERY.

I. (a) Bacillary Dysentery.

No recent and reliable statistics are forthcoming upon the actual therapeutic results of treatment with antidysenteric serum. In order to be of any permanent value a series of cases treated with antidysenteric serum should be compared with a similar series of cases of approximately the same severity, treated on other lines.

The type of the disease caused by Shiga's bacillus is usually the most severe and dangerous to life itself. The results would be more reliable were all serum-treated cases in such a series primarily proved to be due to the organism. Researches have been recently undertaken, especially in the Wellcome laboratories, to strengthen the serum in Shiga antitoxins. It is, therefore, advisable that the brand of serum to be used should be carefully selected and its antitoxic value ascertained.
II.—Diagnosis (Clinical).

Little work has been done upon the sigmoidoscopic appearances of the rectum and sigmoid during the more acute stages of the disease. Much information can be obtained upon the nature of the damage which has taken place and especially of the process by which repair of the mucous membrane is effected. An atlas of sigmoidoscopic paintings of the bowel in various stages of the disease would be most instructive. The mucous membrane of the rectum is almost invariably affected in bacillary dysentery; this inspection can readily be made without an anaesthetic and without seriously inconveniencing the patient.

III.—Bacteriological.

More observations are required upon the persistence of the dysentery bacilli in the feces during the convalescent stages of the disease and more especially upon what is known as the “carrier state.” It is a general impression that the normal symptomless “carrier” of dysentery bacilli does not exist.

IV.

The value of the serum reactions in diagnosis of bacillary dysentery has been seriously questioned. The whole subject requires reinvestigation by the macroscopic method of agglutination and the employment, in case of Flexner dysentery, of the five serological races of the dysentery bacillus. The chronic stage of bacillary dysentery is especially difficult to diagnose by bacteriological methods and it is important to ascertain whether serological methods are of distinct diagnostic value at this stage of the disease.

I.—(b) Amœbiasis.

The metastatic lesions of intestinal amœbiasis require further investigation. Do the amœbæ commonly invade the pulmonary tissues and, if so, by which route do they reach the pulmonary capillaries? Do amœbæ occur in any other organs such as the spleen and the pancreas? Is there such a condition as amœbic cystitis which has frequently been described?

II.—Treatment.

The ease with which the extra-intestinal lesions of amœbiasis may be cured by antiamoebic drugs, such as emetine, requires further elucidation. Does the explanation lie in the fact that the amœbæ are incapable of becoming encysted in these situations? Improvement in our methods of treating the chronic or “cyst passer” stage of the disease is urgently required. The introduction of a drug which possesses none of the disagreeable attributes or sequelæ of emetin and its compounds is a desideratum.

Two new drugs have recently come into use which promise well and if given in therapeutic doses are not attended by any disagreeable sequelæ.
III.

Stovarsol (already mentioned under the heading of malaria) is an organic arsenical compound. More exact and carefully controlled observations are necessary to ascertain the effect of the drug upon the cysts of Entamoeba histolytica and its power of preventing clinical relapses of the disease. This control work, where a man may be kept under observation for weeks and months on end and frequent faeces examinations performed, can be better carried out in the Army than elsewhere.

IV.

Yatren \((C_9H_6O_4SNI)\) is a combination of iodine with oxyquinoline sulphonic acid and is primarily an intestinal antiseptic. It appears to be remarkably efficacious if injected in the acute stage of the disease as an enema composed of 200 cubic centimetres of water containing 3-5 grammes of the drug. The enema is retained and absorbed. Apparently a fourteen days’ continuous treatment by this method suffices to eradicate an amoebic infection from the bowel. There are, apparently, no disagreeable sequelæ.

The confirmation of this discovery is urgently required, together with systematic sigmoidoscopic and stool examinations. The value of this work need hardly be emphasized.

Yatren is a yellow powder made by the Behringwerke, Marburg a/L, Germany, and can now be procured through the ordinary trade channels.

HINTS TO MAJORS R.A.M.C. FOR THE FIELD WORK OF PART II. "PRO-MOTION TO THE RANK OF LIEUTENANT-COLONEL." K.R. APPENDIX X.

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The following are a few of the hints which suggest themselves after sitting for this examination:—

(1) Read through Army Order 225 of 1924, which alters K.R. Appendix X, and realize the scope of the examination in Part II.

(2) Read carefully Field Service Regulations, Vol. I, Chapter XXII, and War Establishments 1923. (All Medical Units.)

(3) The following are suggested as necessary to take into the examination, and therefore to all practices prior to it:—

(a) Black and coloured pencils (e.g., red, blue, brown and green).

(b) Ruler, protractor, dividers and india-rubber.

N.B.—These are in addition to the usual series ordered (i.e., field-glasses, note-book, compasses, etc.).

(4) Learn Grid Map Readings, as grid maps are given out, and all references to positions are required in grid form.

N.B.—Remember the S.W. Corner Square of a large lettered square is always OO.
(5) Read "Required Tasks" carefully, underlining in colour the salient points, then special bits are not missed.
Mark the positions in the maps provided.

(6) When asked about Medical Arrangements, as A.D.M.S. or O.C. Field Ambulance, take a rough piece of foolscap and write down the following:

(1) Your Divisional R.A.M.C. in order:—
   A.D.M.S., D.A.D.M.S.
   Sanitary Section.
   Nos. 1, 2, 3, Field Ambulances (H.Q. Nos. 1 and 2 Coys.).
   N.B.—Do not forget your D.A.D.M.S.; he is most useful in many ways, but he is not with you at the examination.

(2) All Posts likely to be required:—
   Relay Posts, Bearer Collecting Posts, Car Posts, Advance Dressing Stations, Walking Wounded Collecting Station, Car Rank, Main Dressing Station, also position of the A.D.M.S.

(3) Dumps of Stretchers, Blankets and Rations.
   You can tabulate these in three columns, so that everyone is assigned a task.
   N.B.—Unless the above are put down in front of you, one or more are likely to be forgotten.

(7) When changing the positions of Field Ambulances, either forward or backward (especially the latter), put down on paper each Field Ambulance (H.Q., No. 1 Coy., No. 2 Coy.), and underline each with different coloured chalk, e.g., red, blue, green, then you do not miss out one Company, which can easily be done.
   N.B.—Remember to leapfrog your Field Ambulance.

(8) In writing Orders:—
   Do not forget the following:—
   (a) Right hand corner ......... SECRET, and Date, and Copy No.
   (b) Under the title ......... Reference Maps (with Scale).
   (c) Number the paragraphs as suggested in F.S.Regs.
   (d) Do not forget "Acknowledge."
   (e) Underneath write the following:—
      On right .........* signature.
      On left ......... time, place, and method of issue (e.g., issued at 18.00 hours from D.H.Q. by S.D.R.).
      Also distribution and Copy Nos.
   N.B.—Do not forget copies to Sanitary Section, War Diary and File, also to A.D.M.S.s on each flank.
   You are allowed to have with you the Field Service Pocket Book, and
even the 1917 reprint gives orders and messages in Chapter III which can be looked up.

(f) Send a draft of your orders for insertion in Divisional Orders by “G.” (this is as a rule very short).

(9) In making rough maps or plans:—

(a) Put in the true North Point, on the right side.
(b) Underneath put in the Scale (by drawing and words).
(c) Also the conventional signs used in the Map or Plan.
(d) In Map, put in the Divisional and Brigade Boundaries, and Medical Posts (location of all of them). Otherwise only main roads, villages, railways and streams, just so much as to make your arrangements clear.

I am well aware that the above are very sketchy, but they can be elaborated by each future candidate.

To finish I will add a short mnemonic, as all medical students are fond of them (and we are certainly students here):—

A.D.M.S.

A .......... Assistance to Field Ambulances.
D .......... Distribution of Field Ambulances.
            Dumps (stretchers, blankets, rations, water).
            Discipline of R.A.M.C.
M .......... Motor transport, cycles, etc.
            Medical supplies.
            Messages.
S .......... Stretchers.
            Splints.
            Sanitary Section.
            Staff (consult “G” and “Q”).

The above can be added to ad lib.

Retired Medical Officers Setting up in Civil Medical Practice.

By One Who Has Done So.

“We thank you for your last Pay Certificate and beg to inform you that all pay and allowances up to date of your retirement have now been credited to you by us.”

Such a letter is received by hundreds of officers yearly—a sad moment marking the end of a contract carried out well. Now they are free, but in the majority of cases only freed by circumstance, to look about for a new occupation and livelihood in life.

For the retired medical officer is now “up against it.” His father worked hard and denied himself much to educate him—surely then it is up to him to do the same for his children, and give them a sporting start in life.

We retired medicals have much to help us in our quest for remunerative
work. No officer of any other branch is in such a strong and enviable position. We have our profession, striven hard for as students, increased in value many times since, if we have not been drones, during our varied service, with its endless opportunities for gaining experience and knowledge.

It is assumed that our retired medical officer has received a gratuity or a pension (a portion of which he can commute) and that from £700 to £1,000 is available to start him. From death vacancies, or older men retiring, suitable practices are constantly in the market, though one may not hit on the ideal all in a moment.

Now how to set about getting quickly into civil work.

First study the British Medical Journal. There will be seen the names of some six medical agents, all reputable, reliable and helpful to a degree. They will charge no fee as they receive that from the vendor. After a talk with one of these, our friend will be able to simplify the question as to which field of work is most suited to his circumstances, tastes, financial possibilities. Once this is done things will get going.

The agent will want to know what capital the purchaser can invest, whether practice in town or country is desired, and in what district. Let us suppose his wishes point to starting as a half or third share partner in an established town or city practice of say £1,200 to £1,500 a year. He would be asked to put down say £600 or £1,000, roughly. He would be introduced to the vendor, visit the practice and, if he liked the look of things, employ an accountant (3 guineas) to audit and verify the practice's receipts, expenses, etc. If further satisfied, opportunity would be given him to go and work at the practice for a month or more to see if it was as described. If finally satisfied, he concludes the bargain.

Another plan for one with moderate finance is to purchase a share in a city practice in a poorer quarter, with a surgery probably at some distance from the more prosperous residential quarter where he will live. This humbler practice he will visit at set hours morning and evening alternately with his partner, while for emergency calls to it he can be rung up from the surgery to his private house; thus the surgery will help to pay his way while he is "digging in" at his permanent address.

Information may reach one that a certain district or suburb is opening up greatly, and on examination it may prove an excellent policy to invest one's capital in a house in it and start off to build up a practice at once. This is all the more feasible nowadays, as one is likely to get patients at once under the Insurance Act.

Again, he may purchase an existing small practice in a town or suburb and run it on his own. In the writer's opinion at first, at all events, it is wiser and pleasanter to work with a partner. One has more freedom and more time for leisure or for one's other activities.

As to seeking a country practice much the same procedure holds good. Deciding factors will be largely the tastes of the doctor and his wife. Are they to choose country life and its delights, or the more busy and, to many natures, the more congenial, interesting life in town or city?
A large number of ex-service medical men have set up in town and country practices of late years, and those heard of are getting along and are well content.

Should capital be very restricted there is no reason why a man willing to work should be idle. Through agents he can obtain an assistancy till he sees his way clearer.

**Insurance Practice.**

There is no branch of medical work which brings credit and practice more rapidly to a doctor setting up than work under the National Insurance scheme. Let it be understood at once that there is no difference in this work from any professional work a doctor undertakes. It calls for the exercise of the highest degree of experience and skill. Added to this it is educative to a degree, while from a business point of view it repays one generously. Skill, consideration, kindliness to the insured men and women soon make the new doctor's reputation, and the uninsured members of the families come as private patients.

Many of the very ablest practitioners in our cities and country districts include a panel in their practice.

To the lot of a few retired medical officers comes a chance of setting up at once as consultants. There are men who, as Specialists in the Services took advantage of the exceptional opportunities offered them, and by hard work, research, etc., established high reputations in their branch of work. There are a dozen of such in London alone practising chiefly in tropical diseases, ophthalmology, fractures and deformities, throat, nose and ear and dietetics. Men with leanings towards public health work can try for posts of assistant M.O.H. of counties. Several have succeeded in this lately.

As this article threatens to become tedious let me sum up.

You want an income and work. Believe me, patients are only too glad and grateful to find doctors who are courteous, sympathetic and capable. The work is hard, but not unduly so. It is full of interest, and the zest of the fight to succeed is just fine. So get going. Have confidence in yourself; you have been up against many harder propositions.

Thank, but heed not, the friends who say "You have been in the Service so long you will never be able to take to or understand civil practice." Interesting statement, but happily quite untrue. There is no difference whatever in the work worth talking about. To make up for any supposed handicap in being able to run a civil practice the retired medical officer can bring to bear qualities developed in his Service work, thoroughness of examination, self-reliance, powers of improvisation, courtesy, and, perhaps above all, method. So have no qualms. Get hold of a little of the Coué spirit. You will enjoy the fight and succeed.

Ex-Service medical officers who have had experience of setting up in civil practice would be glad to give information to officers desirous of starting. Touch could readily be established between them through our splendid and practical correspondence circle.