John A. Simoons, Ph.D.
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Durham, North Carolina 27713

July 7, 1984

Dear John,

Thank you for your letter of June 20 and the information about the Double Blind Placebo Crossover Study of Clotrimazole and the letter from Dr. Robert Turner. I was tremendously impressed with the protocol designed by Dr. Turner and obviously he is a brilliant and dedicated scientist and physician. I am convinced that once the study is completed and the results published, his image and stature in the rheumatology circles will soar to the highest level. More important, his pioneering spirit will be directly responsible for the relief of tremendous suffering and agony by millions of afflicted humans in the years to come. I am confident that my optimism is not misplaced if this study is properly conducted and after reading carefully through all the material, I sincerely believe it will be.

I do however have one very strong concern and doubt about the study which could possibly lead to erroneous and misleading conclusions. If this subject is not addressed in detail and clarified before the study begins, I am positive that untrue and false conclusions will result. This would be a tragedy for everyone involved with the study and even more so for humanity. This subject concerns the true understanding of the Jarisch-Herxheimer reaction by the researchers involved and their in-depth familiarity with all possible signs and manifestations of this reaction.

John, as you know, I have been using various anti-amoebic medications (especially Metronidazole) for over 2 years and have treated and closely observed over 300 patients in treating their rheumatoid disease. I have talked to literally hundreds of physicians, including numerous rheumatologists and 95% of these dedicated doctors are totally ignorant concerning the Herxheimer reaction and its true manifestations. I'm sure Dr. Turner is very thorough and has done proper research concerning the reaction, but the thought in the back of my mind keeps nagging and bugging me that it might be a wise move for me to list the many and various signs and symptoms that I personally have observed (and I have carefully studied them) that are manifestations of the Herxheimer reaction. Maybe you could then call Dr. Turner and read to him the observations I have made concerning this reaction and I'm sure Dr. Blount could add even others with his vast experience. I would never attempt to tell Dr. Turner what to do with his superior knowledge and experience over my own in the field of rheumatology, but I believe he would appreciate the results of various observations I have made in my own practice concerning this reaction. I am absolutely sure that these observations, if taken into consideration, will lead his efforts and research in this study to a more accurate picture of the truth concerning the investigation.

Let me make some general statements concerning past observations and studies that I have concluded to be the truth in treating rheumatoid disease with anti-amoebic drugs.

1. I recently completed a research project concerning the treating of 200 patients with rheumatoid disease with anti-amoebic medication. The primary anti-amoebic used was Metronidazole and when the desired response was not forthcoming I used other anti-amoebics such as Allopurinol, Furazolidone or Rimactane. Final analysis demonstrated 78% demonstrated good to excellent (cured or in remission) results and 22% showing poor to no result. All patients having a favorable response had some Herxheimer reaction and those showing poor to no response demonstrated very mild to no Herxheimer reaction. Incidentally, no serious side effects were observed from the medication.
2. The amoeba (or offending agent) can involve (or infect) any body tissue, organ or system.

3. If involved (or infected) that tissue, organ or system can demonstrate some form of a Herxheimer reaction when anti-amoebic medication is introduced into the body.

4. With the initial introduction (1st week) of the anti-amoebic medication, the Herxheimer reaction can be so severe that patients become fearful that the medication is doing them great harm and may want to stop the treatment. For this reason a single initial injection of 20-40 mg. of D'Medrol is usually given to lessen the severity of the reaction.

5. After the second week of medication, the reaction gradually begins to subside, as fewer amoebae (or offending germ or agent) are killed and less antigen is released in the body.

6. If a patient has any Herxheimer reaction following the sixth week of medication, the patient is still infected and further treatment is indicated.

7. Long standing or chronic rheumatoid disease responds slower than acute disease.

8. If a patient being treated with anti-amoebics does not have a Herxheimer reaction, the patient simply does not have rheumatoid disease or the particular amoeba (or offending agent) are resistant to the particular anti-amoebic medication being given.

9. Herxheimer reaction signs and symptoms:
   a. General and usual. - Sweating and especially night sweats, diarrhea, nausea, vomiting, headache, fever, general malaise, flushing of skin, anorexia, aching bones and "flu" symptoms resembling a serum reaction.
   b. The inflamed and affected tissues become more inflamed and tissues previously unknown to be involved become inflamed.
   c. If the urinary bladder tissues are infected, patients may develop signs of full blown cystitis.
   d. If the heart, pericardium or cardiac tissue is infected the patient may develop some paroxysmal auricular tachycardia, premature ventricular contractions or ectopic beats.
   e. If the brain or meninges are infected the patient may develop severe (temporary) depression, lethargy, generalized weakness, temporary memory loss (personal experience), irritability along with headaches.
   f. If the mouth tissues are infected, a bitter and/or metallic taste may be noted along with mild shedding or peeling of the mucosal tissues. This has also been noted in the rectal tissues.
   g. When the periosteal tissues and skeletal muscle tissues are involved, fairly severe bone pain usually accompanied by severe muscle pains and spasms may be observed, usually at night.
   h. When the lungs and bronchial tissues are infected the patients may develop bronchitis symptoms and occasionally pneumonitis (resembling viral) has been observed.

From the above, one can easily see that most all of the previously observed side effects of Clotrimazole may also be simply the manifestations of the Herxheimer reaction. Therefore, a clinician that is not totally knowledgeable concerning these possible signs and symptoms could easily mistake the Herxheimer reaction for possible side effects of the Clotrimazole. Should this information not be taken into consideration, a mis-leading and false evaluation of any adverse experiences by various patients caused by the Clotrimazole will be inevitable. Without a clear understanding of this Herxheimer reaction I fear that the continuation of the trials may be threatened, the medicine could be labeled more dangerous than it actually may be, and the aggrevated symptoms could be misconstrued as an intensification of the disease being treated. This information and the above facts must be considered in evaluating Clotrimazole's effectiveness and side effects in this study.
John, I know from Perry Chapdelaine, Jack Blount, Paul Pybus, Robert Bingham and other physicians I've talked to about the above mentioned possibility that they are very concerned as I am. This must be taken into consideration in the study and not only should Dr. Turner be informed of the above information but the Rheumatology Fellows working with him. Please try to follow through on this matter and I will be looking forward to discussing it further with you at the July 14th meeting of the Rheumatoid Disease Foundation in Atlanta.

Sincerely,

Gus J. Frosch, Jr., M.D.

C.C.
Perry Chapdelaine Sr.
Dr. Jack M. Blount, Jr.
Dr. Paul K. Pybus
Dr. Robert Bingham
Dr. Carl Reich
Mr. John H. Swain