BIBLIOGRAPHY

1. Schaller: Early Diagnosis of Tabes Dorsalis, Jour. Amer. Med. Ass'n., Jan. 20, 1917, p. 190.
 2. Romberg: Quoted from Erb, Modern Clinical Medicine, Disease of the Nervous System. New York: D. Appleton & Co., 1910.
 3. loc. cit.
 4. Ogilvie: The Intraspinal Treatment of Syphilis of the Central Nervous System with Salvarsanized Serum of Standard Strength, Jour. Amer. Med. Ass'n., Nov. 28, 1914, p. 1936.
 5. Riggs, C. Eugene, and Hammes, E. M.: Shall We Treat the Paretic? Jour. Amer. Med. Ass'n., Jan. 20, 1917, p. 194.
 6. Cotton: Personal Communication to Dr. Riggs, quoted from Riggs and Hammes, loc. cit.
 7. Riggs: loc. cit.
- 711 Hurt Bldg.

THE IMPORTANCE OF TIME IN THE TREATMENT OF TUBERCULOSIS*

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The importance of time in the treatment of tuberculosis is evident when we analyze the numerous factors relative to it; but it is only when we appreciate their significance and utilize them promptly that we may hope for the best results.

The day has passed most happily, we may say, when tuberculosis was looked upon as an incurable disease. We know now that the patient who has tuberculosis, while he can not expect a cure in the common acceptance of the term when applied to such diseases as typhoid fever, pneumonia or diphtheria, may look for a life of at least restricted usefulness, provided he can spend the necessary time while his disease is most active and he has the resistance to convert an acute into a chronic process. One of the chief difficulties in speaking of, or dealing with, tuberculosis in a general way, is the inclination to treat the disease as a clinical entity, when as a matter of fact no disease, not even excepting syphilis, is more protean in its manifestations; and any advice having for its object the proper disposition to be made of an individual case, should be given with due consideration of the stage and type of the disease.

Too little thought is given to this phase of the subject.

The incipient case will not invariably get well nor the advanced case die. Your moderately advanced case may live for years and your incipient case die in two or three months.

There are many factors which enter into the ultimate outcome and success in treatment which can not be based upon our understanding of the medical features alone. Social and economic equations must receive careful consideration as well.

After a diagnosis has been made the next most important question which has a bearing upon the length of time it takes to get well is, shall the patient stay at home or go away?

Lawrason Brown¹ says: "Treatment at home is less expensive, does not entail residence in a hotel or boarding house or acclimatization after return to work; precludes separation from family and friends, fatigue of travel, home-sickness; does not break up business arrangements in the same degree."

Now, there is a tendency among some of the profession to act upon such advice as this and they are encouraged by other authorities who sincerely believe in home treatment—and also by the patient himself, who is naturally disinclined to leave home and friends.

But my experience with treating patients in their own homes has not been satisfactory and I have found the reasons given by Brown for advising patients to stay at home are, many of them, the very reasons for which I would advise a change. One thing is certain, staying at home does not shorten the time that patients must employ in taking the cure. That they can get well at home in any climate and often under adverse conditions is a well known fact; but it will be admitted, I believe, by all unbiased men that a change of climate and environment has some beneficial effect over metabolic processes which we often see illustrated in those who have attempted to get well at home and who have steadily lost but who rapidly improve after a complete change of environment.

Most of those who have contracted the disease have done so by overwork, dissipation or unhygienic living, and to overcome these obstacles to recovery at home with

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temptation so close at hand is expecting more than should be expected of the average individual, and the physician who undertakes to manage a case under such conditions finds most often that his failure to obtain results is due, in no small measure, to his inability to make the patient live correctly. Time lost in these unsuccessful efforts is valuable time and adds not only to the sum total of wasted time, but often precludes the possibility of recovery. No physician should undertake the treatment of a case at home unless he is willing to devote sufficient time and attention to the many small details which the necessities of the case demand. It is not sufficient to say eat plenty of nourishing food, keep quiet and live in the open air, and then leave it to the patient to carry out these instructions as he sees fit or as it suits his temperament to do so. Important and helpful as these measures are, they may be harmful unless correctly applied and the patient should not only be instructed in the proper way to use them, but what is more important the physician should see himself that they are carried out as he directs. The difficulty is just here, for it is next to impossible for the sick one living with those who are well to carry out the doctor's orders. The well are living one way—the ill must live another and contrary way. Those who are well must so order their every-day lives that the invalid comes in for first consideration. This state of affairs is rare, for we seldom see so much unselfishness under one roof. The intrusion of meddling but well-meaning friends, the presence of solicitous and over-anxious relatives, the pressure of some unfinished work, business and household worries, these and many others contribute their quota to the endless number of little things which make system impossible and treatment ineffectual.

I have dwelt upon these factors because when they do interfere with and delay recovery their real importance in the matter of time is hard to exaggerate. Half-way methods, compromise and subterfuge have no place in the treatment of tuberculosis. Some one has wisely said that the patient must do the right thing, in the right way, at the right time, if he wishes to get well.

Were I to select a text for this paper I could do no better than quote the following aphorism of Hippocrates: "Life is short and the art long; the occasion fleeting; experience fallacious and judgment difficult. The physician must not only be prepared to do what is right himself, but also make the patient, the attendants, and the externals co-operate."

We are forced to conclude, then, that when it is possible to do so we are serving the best interests of our patient by sending him from home to a more favorable climate and suitable environment and placing him in competent medical hands.

When he has done this the physician has done what is right himself and he has taken the first step toward shortening the time necessary for cure, and as time, with its concomitant factor of expense, stands out in such clear relationship to recovery, nothing, no matter how trivial, must be overlooked which may save either.

The chronic nature of tuberculosis makes it an expensive disease to overcome and, as the majority of victims are in moderate circumstances and dependent upon their own efforts for support, time and money become the paramount issue and we are convinced from long observation both may be saved by giving the patient treatment away from home, provided he can afford as good or better service than he can command at home.

I believe in tuberculosis, as in medicine and surgery generally, that it is the very poor and the rich who get the best advice and receive the best treatment. The indigent are cared for in local sanatoria by skilled attendants without cost to themselves, and the rich may go where they please and obtain the best without thought of expense; but it is the large middle class who do not care to be a public charge and yet who can not afford to pay even the moderate charge of a private sanatorium, that give us the most concern. They furnish a real problem in resort towns, and municipalities, to protect themselves, have had to pass segregation and other laws which may seem harsh but are only just, if they are to entertain the sick at all in their midst. If these patients should only place themselves for guidance and advice under some physician who is conversant with local conditions, they would fare

much better, but they generally elect to manage their own cases. They are usually not far advanced and do not believe they are ill enough to go to an institution. Besides they do not want to be known as tuberculous and they do not care to associate with the sick.

When they can conceal the nature of their disease they go from boarding house to boarding house, sacrificing comfort and necessities to appearances, often doing without medical supervision to save expense until the disease is so far advanced they are forced to seek the sanatorium in a last effort to get well. By this time they have learned their lesson, but they have wasted time and money enough to have made a recovery had they employed both properly in the beginning. Some of the saddest chapters in the history of tuberculosis have been written by patients themselves who have made these mistakes.

If the profession at large were better acquainted with conditions in resort towns it would not be necessary to remind them that they could assist very materially by insisting upon their patients' having competent medical supervision whenever it was thought necessary for them to leave home for treatment.

Our hope lies in getting cases in the early stages and keeping them long enough to effect a cure. It is true some incipient cases, especially those suffering from mild toxemia and no local signs in the lungs, have become arrested after a short absence from home and even without medical aid, but have they really profited in the long run? True, their trouble may have become arrested, but they have learned nothing about the disease and from what is known of the pathology of tuberculosis we may reasonably expect a recurrence which will not be so easy to arrest the next time. Fishberg² speaks of patients who have recovered while waiting to be admitted to the sanatorium and who have returned home to question the original diagnosis. While there may be a few such, there are many more whose trouble has progressed because they did not have advice early enough.

Could more incipient cases be induced to take institutional treatment, much of the pessimism as to its value would disap-

pear and a much larger per cent. of recoveries could be returned. Incipient cases would be more easily recognized and the whole question of prognosis better understood if we would only remember that tuberculosis in the beginning, it matters not what part of the body is affected, is a bacillary toxemia recognized by constitutional lary toxemia recognized by constitutional nor any other organs and that later on, when infiltration, caseation and softening have produced anatomical changes, it is yet, after all, the toxemia and the patient's resistance which determine the ultimate outcome.

Old advanced cases with extensive destruction of tissue may enjoy a fair degree of health, provided the lesions are walled off sufficiently to prevent the absorption of toxin.

On the other hand, a very early case with only a slight local lesion, which has not had time to be protected by fibrous tissue, may go all to pieces from toxemia.

I believe with Elsner³ that "in no other disease is the physician more directly responsible for the outcome than in pulmonary tuberculosis."

And I sometimes wonder if we are doing all we should for our patients.

It is a difficult matter to remain quiet long enough to get well. The long, dreary months of inactivity are very irksome and patients are often held to the task by the personality of the physician alone. We have no specific, no cure-all by which we can shorten the time. It is only by increasing the resistance and slowly building up that we effect a cure, but should we continue to let our patients simply loaf while taking the cure when there are well known physical means, such as X-ray, mechanical vibration, high frequency current and static electricity, which might be employed in conjunction with the so-called rest cure.

In conclusion:

1. The time spent in arriving at a diagnosis is not considered as lost, for it is almost as great a mistake to brand a case tuberculous with all the resulting consequences as to fail to recognize the disease.

2. After the diagnosis has been made no time should be lost before commencing treatment.

3. It is economy in both time and money

to send the patient from home for treatment when they can afford to go, provided their means are sufficient to supply as good or better accommodations and they can obtain the necessary care and attention.

4. Satisfactory results can only be expected if the time is spent as it should be under competent supervision.

5. There can be no compromise, make-shift nor subterfuge with the disease once it has asserted itself until arrested or cured.

6. We should not be content to let the patient simply loaf while taking the cure, but should employ other agents as well that are known to assist and improve metabolism.

BIBLIOGRAPHY

1. Osler's Modern Medicine, I, 487.
2. Fishberg, Pulmonary Tuberculosis.
3. Elsner, Monographic Medicine.

THE WASSERMANN REACTION*

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While the Wassermann reaction is accepted by the great majority of the medical profession as a valuable auxiliary in the diagnosis of syphilis, and a smaller percentage apply the test as a check on the efficacy of therapeutic measures employed, the accuracy of the reaction is to a more or less extent viewed through pessimistic eyes owing largely to a certain amount of misunderstanding existing between the serologist and those coming in direct contact with the diagnosis and treatment of syphilis.

It is claimed by some laboratory workers that for a reliable interpretation of the reaction the serologist should be furnished with a history of the case, not for the purpose of assisting him in rendering a report that will check up with the clinical features of the case, but for the purpose of allowing him properly to interpret what we might term border-line reactions. The great objection to the serologist's being furnished with this information is that by receiving it he is in danger of having it considered that his reports are more or

less influenced by clinical histories. It is admitted that this is not as it should be, but nevertheless is a feature that has to be taken into consideration, more especially where the clinician and the serologist are not personally known to each other. For the present, therefore, in the interest of having this valuable test fully relied upon and accepted by the profession I consider it wise for the serologist to abstain from going into the clinical features of cases upon which he is requested to conduct Wassermann tests. He will appreciate that under these circumstances it will frequently be necessary for him to go into more details in rendering his reports than if he were conversant with the clinical aspect of the case. It should, of course, be appreciated by the clinician that in strongly positive reactions or in completely negative ones no data is necessary for the serologist, the reaction in such instances being able to stand purely on its merits. It is necessary, however, to accept negative reactions with a certain amount of reserve under conditions to be discussed later. It is in the border-line reactions that the clinical history is an aid in making a definite, clear-cut report without the supplementary remarks that should accompany reports on such reactions where the clinical features of the case are unknown to the laboratory worker.

In illustration, what interpretation should be placed upon a weak two-plus or a one-plus positive reaction, or what we might properly term border-line reactions? It should be borne in mind that the equations used in reporting Wassermann reactions are more or less arbitrary, a one-plus positive representing 25 % deviation of complement, each succeeding figure used standing for a 25 % additional deviation. A two-plus may, therefore, represent any amount of deviation from, we will say, 35 to 50 %, the former termed a weak, the latter a strong two-plus. In the absence of clinical symptoms or of a suspicious history, a weak two-plus representing 35 % deviation of complement should not be made the basis of a diagnosis of syphilis. On the other hand, in the event that there has been a suspicious initial lesion a few weeks prior to conducting the blood test, such a report should be viewed with

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