THE VALUE OF REST—PHYSICAL AND MENTAL—IN TUBERCULOSIS.*

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It is pleasing to note that in recent years rest—physical, mechanical, and mental—is being recognized by the practical phthisiotherapist as a valuable agent in the treatment of tuberculosis.

Although the attention of the medical profession has been drawn to the value of rest—physical, mechanical, and mental—in other acute and chronic diseases, it is nevertheless a fact that the medical profession has been exceptionally slow to recognize the great value of *rest* in tuberculosis.

It is surprising, when searching our medical literature, to know how little has been written upon this important subject.

For years, perhaps centuries, the antagonist of rest—i. e., exercise—has been the "standard" measure accepted as a means of combating tuberculosis.

Though the latter practice is not based upon any definite theoretical or practical reason, its use has been handed down from generation to generation, and was promulgated for the very reason that it became traditional heritage—not to be blotted out so easily from the human mind, and less so from the medical mind.

The purpose of this essay is to show that, though we can derive some beneficial effects by the use of exercise, absolute *rest* must replace the latter in active tuberculosis, and modified *rest* in quiescent and arrested tuberculosis.

In considering the nature of the disease, its very infectiousness leads us to the adoption of rest in tuberculosis.

We know that exercise entertains the formation (to excess) of tuberculin protein poisons, and that the effects of the latter (in

excess) upon the body cells of the human organism are deleterious to the improvement of the tuberculosis patient.

We know that the tubercle bacillus and its poisons not only affect the immediate tissues at the point of infection, but also affect every body cell of the human organism. Not only are the fixed tissue cells involved, but also the white blood cells.

Drs. Solis-Cohen and the essayist have shown in a paper published in the transactions of the National Tuberculosis Association (1912) that exercise affects the white blood cells (more so the neutrophiles) not only in their quantitative value, but also in their qualitative value.

If this be correct, the harm done by exercise can be partly accounted for.

When we further consider the innumerable instances where exercise produces deleterious effects, we feel that rest must replace the traditional and indiscriminate practice of unguarded exercise.

In incipient tuberculosis exercise has been greatly abused, and rest has been overlooked and sadly neglected—thus, not only impairing the welfare of the tuberculosis patient, but also that of the healthy and susceptible individual; for every incipient case of tuberculosis who is allowed to drift into the far advanced stages is a menace to the nation at large.

My experience with hundreds of incipient tuberculous cases is that rest is most essential for satisfactory results.

I have made it a practice for the past decade to put all my incipient cases under absolute rest during the first few weeks or months of treatment.

In ordering absolute rest it is not sufficient to simply tell the patient that he must rest, leaving it to his discretion and choice. Definite written orders, specifying rest in the reclining posture and at definite periods, is essential for good results.

In the febrile case rest is still more essen-

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tial, for the case running a temperature of 100 F. or more should always be placed under absolute rest in bed and in the open air.

The tuberculous case whose temperature does not recede after a few weeks' rest is in a precarious condition, and should be guarded with the closest attention, and rest persisted with to the very limit. Such patient's meals should be served in his bed or cot, and no mental exertion permitted.

It is only by persistent rest that we may overcome the disseminated lesions in the acute active tuberculosis.

True, it may take weeks, months, and years in some chronic cases before we can observe the beneficial effects of absolute rest. It is in these very cases that the attending physician must be positive in his assertions, and that he must not allow himself to be influenced by sympathy or antagonism, and thus permit the patient to cease the carrying out of the prescribed rest.

If after a certain lapse of time the temperature, pulse, gain in weight, digestion, neutrophile index, etc., warrant the taking up of carefully guarded exercise, this can be done and timely enough.

As for a fixed rule giving the time that a patient should be kept under absolute rest, it is absurd to expect it. Each individual will act as his own index or guide—i. e., if after a few weeks' rest, the incipient tuberculous case shows upon exercise a loss of weight, temperature, increase of pulse rate, disturbance of digestion, a high neutrophile index, etc., he must be put back under an absolute rest until a similar test will be free from any such effects. By this alone can we maintain and favor the increase in the resistance of the tissue and blood cells, and thus protect the latter from the deleterious effects of the tuberculin protein poisons, which if allowed to persist in excess will finally deplete all the remaining resistance in the body cells.

Let us consider this important subject in a practical way, and not allow ourselves to be

carried off by supposedly objectionable reasons that generally can be removed when properly crystallized.

We have in the carrying out of rest two conditions to contend with. 1. The incapability of the ordinary or poorer individual to rest. 2. The unwillingness of the wealthier individual to rest. The first may be overcome in many instances by impressing upon the other wage-earners of the family the necessity for absolute rest.

It is, however, in the family where there are no other wage-earners than the afflicted patient that we feel the necessity for some provisions to be made by the State; thus not only permitting the poorer patient to rest without worry and for an indefinite time, but also helping him in the maintenance of his family. This could be done by some measure of insurance, as practiced in England and Germany.

Of what use is it for the poor tuberculosis patient to rest for a few weeks or months in a sanatorium or camp if he has to return to the dying post, i. e., back to work, and thus lose in a few weeks what he has gained during his sojourn in the sanatorium?

It is far better to properly provide for such cases in a way that they can partake of the benefits of a prolonged rest, with the hope of eventually ridding them of their affliction.

The "farm" has been tried and suggested as a means of helping the poorer consumptive in earning his time and existence until recovery. This may be beneficial in certain cases, but surely cannot be applied in a general way. Could not many of the "farming" cases do better if kept under more modified rest and less active exercise?

We are told that the recovering patient must be prepared and trained by varieties of exercise in order that he may resume his previous work or occupation. Is this not more theoretical than practical? Is this not another of these theoretical conclusions promulgated by traditional heritage?

It has also been said that "prolonged" rest will make neurasthenics and slothful citizens of the tuberculosis patients. To any one who has used and applied rest as a protective and therapeutic measure in the treatment of tuberculosis, this statement will appear to be absurd and erroneous.

It has been surprising to me to see how tuberculosis patients will resume their previous occupations and perform their duties after months and years of closely applied rest, and this without the display of much exertion.

To my mind it is not a question of preparing the patient for his occupation or work; but one of ridding him of his tuberculosis and of his incapacity for work and of the danger of infection to his fellow-men.

In following the "farm" or auto-inoculative plan of providing for the quiescent consumptive, can we guard these patients with sufficient vigilance in order that we may tell when any of them have taken the sufficient inoculative exercise that will not prove injurious? This seems impossible unless there be a guard for each patient, and certainly this would not be an economical measure; in fact, less so than one providing for a prolonged rest. And then, do the statistics of farms, etc., show better results than those measures where rest is the prime factor and exercise the secondary factor?

Well guarded and intelligent exercise can be applied in certain cases of tuberculosis with benefit, but only after rest has been used and the disease quiescent or arrested. This cannot be done without individualizing, and then only under close attention and observation.

In applying rest one must be positive with those under his charge. We must not give way to the unwillingness of any patient whose life can be saved. Whenever we become weak and too sympathetic for a patient, we can ex-

pect a retrogressiveness in that patient's condition. I have always had cause to regret my giving in, through sympathy or otherwise, thus permitting the practice of exercises which were beyond my control.

It is astounding to note the effects of rest upon the temperature, weight, appetite, neutrophile index, etc., of tuberculosis patients. Do we observe such symptoms of improvement in the patients who are abusing indiscriminate exercise? In my experience I can answer, No.

To be convinced of the value of rest, it is necessary that patients should be exercised, as only then can we observe those deleterious effects caused by excessive exercise.

Let us all take up this experiment, and I am convinced that we will all soon be advocates of rest in place of exercise in active tuberculosis.

In concluding, let us not forget that the patient's psychic or mental condition must be carefully studied. Worry and uneasiness in the tuberculosis patient is of more serious moment than we have thought of.

Always alleviate any measure which tends to entertain worry and uneasiness; and it is for this reason that I believe that patients should be treated in their home. If agreeable to the patient, he can be sent away to some other State for treatment; but never, if he must be sent off, reluctantly.

It is better to give up treatment in any patient whose mental condition is continuously tormented by worry and uneasiness. Try all you can in such a case, and he will not improve. Therefore, in carrying out the rest treatment, always consider the mental state of the patient, and try to control his psychological defects. This will determine whether you are able to manage his case or not, and whether you are able to carry out the principles of properly applied physical and mental rest.