

When the temperature runs up in spite of our drugs, I would advise in the milder cases, spongings of the whole body every two hours,—the sponges to be squeezed out of a mixture of water and bay rum, at a temperature of from 60° to 80°. If this does not succeed (it rarely fails), and the patient's temperature mounts up to 104° or 105°, then he must be wrapped in sheets wrung out of cold water. If the temperature still runs up to such an extent that life is threatened, I would then have patient placed in a cool bath until the bodily temperature is sufficiently reduced. So far, therefore, from regarding cold baths as a proper mode of treatment, I would have them reserved for the gravest of all conditions only, and never employ them until the danger-point was reached. Before the local lesions set in, we can attack the fever more boldly, but when the fever in subsequent stages runs high, it is of the nature of a sympathetic fever, largely dependent upon the amount of intestinal lesion, and therefore the use of cold baths at this period is attended with great risk. If the cold bath is to be used at all (except as a last resort and when temperature can be reduced in no other way), the proper time for it is during the first seven or ten days in cases where the temperature rises above 103° and is not controlled by frequent spongings, large doses of quinia, diaphoretics, etc.

As typhoid fever lasts so long, there is, of course, a great deal of prostration attending it, and stimulants are quite often called for. Now, I want to say a word to you with regard to the use of stimulants in this disease. Do not fall into the common habit of administering stimulants to a patient simply because he has typhoid fever. Stimulants are only demanded for the relief of certain symptoms. Children before the age of puberty are usually able to pull through an attack of typhoid fever without any stimulus. This patient before you has been carried safely through both first attack and relapse without a drop of stimulus. Stimulants are, as a general rule, only needed in the case of an old person, or to meet certain indications. These indications I may conveniently arrange under four heads, viz., (1) ataxic nervous disturbances, such as sleeplessness, twitchings of the muscles, maniacal delirium; (2) circulatory disturbances, such as feeble and rapid pulse, and feeble development of the first sound of the heart; (3) profound asthenia, as shown by great tremulousness, inability to make any movement, and tendency to slide down off the pillow; (4) dry and brown tongue, with sordes on lips, teeth and tongue. You will usually be able to note at once the development of any of these symptoms, which of course render stimulation absolutely necessary if the patient's life is to be saved. In using stimulus it is well to begin with the milder forms, such as wine whey. This should be made in the proportion of one part of sherry to three of milk, and as much as a gill or half a pint of it may be given in the course of three hours. If the symptoms increase, however, it is a sign that stronger stimulus should be employed, and whiskey must then be given. I

usually give whiskey in lime-water and milk, the lime-water preventing the coagulation of the milk by the alcohol. I make up the mixture in the proportion of one tablespoonful each of whiskey and lime-water to every three ounces of milk. In this form half an ounce of whiskey may be given every hour. Indeed, in some very serious cases I have administered as much as an ounce of whiskey every hour for a day and night in the crisis of the disease. If your stimulation is doing good, you will be able to note a diminution of all the serious symptoms. If, on the other hand, the symptoms increase, you had better reduce the amount of stimulus given. Some authorities advise the use of stimulus to a slight extent in all cases after the middle of the second week of the disease. The occurrence of hemorrhage, pneumonia, or severe bronchitis always demands prompt stimulation. In some cases stimulants may prove a cause of irritation to the ulcerated glands, and so increase the secondary fever.

Before closing, there are a few points which I desire to impress upon your minds regarding the complications of typhoid fever and their treatment. This man is a very good illustration of one of these complications, viz., relapse. Relapses may occur at any time during the period of convalescence, and are always to be regarded as true second attacks of the disease. In the diagnosis of relapse be careful to search for any local cause, such as pneumonia or bronchitis; if none such can be found, you may be pretty certain that the relapse is a true one. It is very easy to understand how a relapse may occur, when we consider that it is nothing more or less than a return of inflammation to the glands of the intestines: some of the ulcers have healed, perhaps, and others have not progressed quite so far, when another crop of glands go on to ulcerate. When relapse appears, treatment must be resumed at once, the diet restricted, and the same general watchfulness had over the state of the case as during the course of the first attack.

This man's relapse was heralded by a series of copious hemorrhages from the bowels. Hemorrhage, as a complication of this disease, must for a moment engage our attention. Hemorrhage may take place at any time while the bowels are ulcerated. It generally occurs at one of two periods,—either early in the attack, when it is of little or no consequence, or later, when the sloughs are thrown off from the ulcers. Hemorrhage at this time is always a serious matter, it may be very fatal, producing death in the course of a few moments. Be careful, therefore, to have every dejection examined by the nurse.

The treatment of hemorrhage is by absolute rest in bed for twenty-four hours, and by the administration of opium to produce absolute quiet for the alimentary canal. In cases of hemorrhage I am in the habit of giving opium by the mouth, or, better still, by the rectum. I prefer the solid opium, and prescribe one grain every two or three hours until the patient is gently under its influence. Then we have certain astringents which act locally. Of these, acetate of lead is perhaps the best: a suppository