

but not quite so often at night. He generally begins with stimulants in the second week of the disease, taking as his guide the state of the first sound of the heart. Rarely, however, does he give more than from eight to ten ounces of whiskey in twenty-four hours.

The patient is sponged with cool water twice daily, oftener if the temperature exceed 103° . Under these circumstances, too, an occasional decided dose of quinine, or antipyrine is resorted to, particularly if the high temperature be in the morning or show signs of persistency. He is an advocate of being very watchful for complications, and for their early treatment. Late in the fever and during convalescence he generally directs quinine.

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Dr. Tyson's treatment of typhoid fever is mainly a symptomatic one. Placing the patient upon a milk diet from the outset, and continuing it until convalescence is established, symptoms are treated as they arise. Diarrhea is preferably controlled by nitrate of silver and the extract of opium, one-quarter grain of each three or four times a day. In more obstinate cases of diarrhea where this treatment fails, although seldom necessary, the more powerful astringent, acetate of lead, and more rarely tannin, is substituted for the nitrate of silver. Abdominal pain and tenderness are treated with poultices in addition to opium.

High temperature (104° to 105°) is combated by sponging the body. Persistent temperature above 105° is treated by wrapping the trunk with cloths wrung out in iced water, which are renewed every hour or half hour, and even oftener if necessary, the temperature under these circumstances being taken hourly. Quinine is given in almost every case, not as an antipyretic, but as a tonic and stimulant, in doses of from six to sixteen grains daily. The stage of dry tongue is treated with turpentine in doses of ten drops every three hours.

Alcoholic stimulants are used in almost every case as required: moderately in mild cases, and in full doses in severe cases, frequently half an ounce every two hours. Sometimes larger doses are given. *Very high temperatures are regarded as demanding the fullest stimulation.* Dr. Tyson has used largely the modern antipyretics, thallin, antipyrin, and antifebrin, but considers them inferior to the iced cloths. Of these antipyretics, however, he prefers antifebrin as less alarming in its effects, and equally efficient with the others in reducing temperature.

Dr. E. T. Bruen conducts his treatment without reference to the administration of specifics. During the first few days, especially in the fall of the year, when malarial influences prevail, it is customary to give for one or two days full doses of quinine for diagnostic purposes. If the continued nature of the fever is demonstrated, an expectant plan of

treatment is inaugurated, which in mild cases is continued throughout the course of the disease till its termination.

If the temperature exceeds 104° , sponging with cool or cold water is the means usually adopted. The sponging must be repeated every few hours. Sometimes cold water in rubber bags is applied to the back of the head and abdomen. The cold bath is reserved for those exceptional cases in which the high temperature seems to be influencing the nervous centres. The cold water bath he believes can be employed in the early stages of the fever with more safety than later on, since the vasomotor centres are much more responsive, and dangerous congestions of the viscera are avoided. The administration of antipyretics, such as antipyrin or antifebrin, so useful in the zymotic fevers of childhood or in the hectic of consumption, is to be avoided in typhoid fever for fear of disturbing the activity of the stomach. When the typhoid state is marked, associated with high temperature, the occasional use of antifebrin, in five-grain doses, is desirable and preferable to the cold bath. But persistent systematic sponging of the surface of the body in the usual order is the safest and best means in his hands of reducing temperature in typhoid fever. Quinine is employed in tonic doses, but not as an antipyretic.

Great stress is laid upon the administration of nourishment. From four to six ounces of milk should be given every two hours for eighteen hours out of the twenty-four. An interval of five hours once in the twenty-four should be secured to foster the digestive powers. Care should be taken to prevent the coagulation of the casein by dilution with Apollinaris or lime water; one or two raw eggs may be administered every other day. This method of diet is relied upon till convalescence is inaugurated, when the beef broths, prepared with some cereal, are allowed. The importance of delaying the use of meats until the temperature has been quite normal for more than a week, cannot be overestimated, and the first solid diet permitted to convalescents is farinaceous in character.

When diarrhea manifests itself, nitrate of silver in $\frac{1}{8}$ th grain doses with $\frac{1}{2}$ th of ext. opium is given every four hours, with opium suppositories, if necessary, in addition. In the majority of cases this is sufficient; but acetate of lead is resorted to in case of failure. Turpentine in emulsion (with muriatic acid in cases in which silver is not used) is always employed as soon as the typhoid state begins. The general stimulative properties of turpentine, aside from its local effects, render it invaluable in a majority of cases. Constipation of the bowels must be avoided, and every other day at least the bowels should be moved. Enemata, carefully given, seem to him the best mode of securing the desired end.

Internal congestions are antagonized by chang-