

an impending end. Local revulsion seems to be useless, and plasters over the cardiac area are often dangerous. A means of revulsion which has apparently proved efficacious is the application of a bag filled with ice on the region of the heart. Where there is a typical myocarditis, a light flannel covering is first placed to avoid immediate contact and a bag filled with ice is permanently kept on the precordial region. This appears to have a quieting and strengthening action on the heart, and cardiac troubles are often seen to disappear.

Among the different medicines used in the failing heart of typhoid fever, mention must first be made of strychnin, digitalis, caffeine and ergot. Each of these therapeutic means has its indications, which necessarily vary according to the condition of the patient. Digitalis acts as a cardio-vascular stimulant, quickens cardiac contraction, and under its influence one can observe the heart beats grow stronger, and the pulse become freer and less rapid. Arterial tension is increased. The action of digitalis is not very rapid, and its elimination is slow, and on that account we have seen caffeine succeed better in cases of typhoid myocarditis.

Caffeine is an excellent remedy which has rendered me great service. It can be used by way of the mouth, but it is especially by subcutaneous injections that its effect is most manifest. These injections can be repeated in serious cases 3 to 4 times in 24 hours. Under the influence of this drug the heart seems to right itself quickly. At first the action is more rapid, then becomes slower and the beat becomes more energetic. The action is rather transitory, but when caffeine is given in combination with strychnin one often succeeds in sustaining the heart effectually. The action of alcohol in typhoid fever has been a subject of much discussion for many years indeed, but my experience leads me to give it in full doses, continuously watching the patient, and lessening or increasing the quantity of alcohol according to the varying conditions of the patient.

In some cases where the heart is failing as the result of the intensity of toxemia or of loss of blood from intestinal hemorrhage, I have had the most gratifying results with interstitial injections of the saline solution administered in the pectoral regions.

In one case which I had under my observation in the Toronto General Hospital there were in all 28 hemorrhages recorded. By the most energetic use of the saline solution the heart was given sufficient fluid on which to contract, and though the patient during a trying period of ten days was blanched and almost bloodless, recovery ensued.