

clear, and beyond the symptoms already described he was suffering no inconvenience whatever. He was sent to bed, with orders that he should receive a purge and that his diet should be restricted to liquids.

During the ensuing twenty-four hours, though remaining quietly in bed, he had several attacks of unconsciousness. On one occasion upon getting out of bed and losing consciousness, he fell and struck his head. I saw him shortly afterwards and observed the following condition:

The cardiac rhythm (chart A) presented a condition somewhat analogous to that respiratory phenomenon known as Cheyne-Stokes breathing. There would be one or two full, and what I shall call, normal cardiac beats, then the beats would become more rapid, and lesser in volume until there would be absolutely no movement of the heart to be felt on palpation and no sound audible through the stethoscope, for a period of 8 or 10 seconds. Then the beats would commence again, hardly perceptible at first, but becoming fuller and slower until a normal beat was reached, again to increase in rate and decrease in force, and so on.

At the end of the period of the stoppage of the heart's action tonic convulsions (chart B), more or less general in character, occurred, and which lasted four or five seconds, terminating just before the normal beat was reached. The attacks varied greatly in severity, at times only the muscles of the face or a single group of muscles appeared to be affected, but usually all the muscles of the body were involved. There were alternating periods of consciousness and unconsciousness (chart C), the consciousness extending from the moment that the convulsions had ceased to about the middle of the period of the stoppage of the heart beat, in all about 8 to 10 seconds, when unconsciousness would suddenly ensue. The mind was perfectly clear during consciousness, the patient would at times keep up an animated talk, would cease suddenly upon losing consciousness, to again take up the thread of the conversation upon the return of consciousness. The transition from the one state to the other was very rapid.

The colour and general appearance of the face presented marked and rapid changes (chart D). When the convulsive movements commenced there was a death-like pallor upon the face, which, as the convulsions increased in force, gave place to an intense suffusion which lasted a second or two, until the convulsions ceased, when the face assumed its normal aspect. It remained normal for a few seconds, that is, until about two seconds after the heart had ceased to beat, when it took on a constrained look and became pale, the paleness deepening into a death-like pallor lasting from 6 to 8 seconds.