Notes

ON

THE PATHOLOGY AND TREATMENT OF CHOLERA.

BY

GEORGE JOHNSON, M.D., F.R.C.P.,

PROFESSOR OF MEDICINE IN KING'S COLLEGE; PHYSICIAN
TO KING'S COLLEGE HOSPITAL; ETC.

[Continued from p. 450.]

WITH reference to the hypothesis that the characteristic symptoms of choleraic collapse are caused by the loss of the watery constituents of the blood, we have next to inquire, *whether the symptoms of collapse are such as an excessive drain of fluid from the blood would be likely to produce.*

Now, what is the condition of a patient who has suffered a profuse drain from the blood, whether of water alone or all the blood-constituents? What is the effect of a copious hæmorrhage, of a profuse and long continued leucorrhœa, of prolonged lactation, of excessive purging, whether the result of disease or of medicine? Is not the condition of a patient who has been exhausted by such means, of the nature of syncope? There are a small and frequent pulse, a pallid skin, dimness of sight, and *tinnitus aurium*: these symptoms being much increased by the erect posture; and, in extreme cases, the head cannot be raised from the pillow, even for a moment, without the occurrence of syncope. For a patient in this condition to walk or stand, or even to sit up, is simply impossible. Now, there is something in the collapse of cholera which is essentially different from the mere exhaustion which leads to syncope. In fact, almost the only symptom which is common to the two conditions is the extreme smallness and feebleness of the pulse.

One great distinction consists in the remarkable blueness, coldness, and other symptoms indicating that during the collapse of cholera the aeration of the blood is greatly interfered with; while no such symptoms of obstructed respiration occur in ordinary cases of exhaustion from excessive purging. Another great and obvious distinction is this: that whereas a patient exhausted by a drain of fluid from the blood, and therefore verging on syncope, is unable to assume the erect posture without losing at once his pulse and his consciousness, a patient in the collapse of cholera, whose skin is blue and icy cold and whose pulse is imperceptible or extremely small and feeble, is often able to stand up without becoming faint, and even to walk a distance which must require a considerable amount of muscular exertion.

This is a fact alluded to by several authors; and no one can have watched cases of the disease without having observed the surprising amount of muscular exertion of which even a cold and pulseless patient is capable. It is scarcely necessary to quote authorities for this statement; but I will refer to one in illustration of what has been advanced.

Scott says (*Report on the Epidemic Cholera*, p. 24): "Instances are not wanting of patients being able to walk, and to perform many of their usual avocations, even after the circulation has been so much arrested that the pulse has not been discernible at the wrist." The same author states, in another place, when speaking of the effects of blood-letting (p. 58), "It is remarkable that, in a disease like cholera, syncope should be so rare a symptom." And, again (p. 28), "During the progress of this disorder, when the nervous energy seems to be almost annihilated, and the functions of the heart and arteries to be abolished, this symptom (syncope) is yet very rarely observed."

Another remarkable difference between the collapse of cholera and the exhaustion caused by an excessive drain of liquid from the blood, consists in the rapidity with which a patient often recovers from the former condition. As an instance of this, I may quote the following from Dr. Gull's *Report* (p. 135): "I have seen" (says Mr. Grainger) "a man stand at his door on Wednesday, who on Monday was in perfect collapse." And this observation, as Dr. Gull observes, is in accordance with the experience of others.

With reference to this remarkable feature of cholera, Twining makes the following statement (*Clinical Illustrations of the more Important Diseases of Bengal*, p. 20): "In cases not fatal, the progress of recovery is often almost as rapid as the accession of cholera; and if the disease be treated at the very onset, it is not uncommon to see a person well on the third day, after an attack of the worst symptoms, which had commenced with coldness and collapse, and who, if left without remedies, would probably have died in six or eight hours. *In these instances recovery seems almost as sudden and complete as in cases of patients who are resuscitated after suspension of animation from submersion in water.*" It is scarcely necessary to insist upon the fact, that no such instances of rapid recovery from extreme prostration consequent on a drain of fluids from the blood are ever known to occur; nor, from the nature of things, is it possible that a great loss of blood-constituents can be restored with such extreme rapidity.

The natural and obvious inference from these facts appears to be, that there is an essential difference between the condition of a patient who has been exhausted by a profuse drain from the blood, and that of one in collapse with cholera. It is, therefore, incumbent on those who maintain that choleraic collapse is due to the loss of fluid by the intestinal canal, to explain, if they can, the remarkable differences which have here been pointed out between the symptoms of collapse and those of ordinary syncope.

Our next inquiry shall be, whether the effect of various modes of treatment in the collapse of cholera affords any support to the theory that a drain of fluid from the blood is the essential or the chief cause of that condition.

[To be continued.]