A CASE OF CHOLERA TERMINATING WITH PERICARDITIS.

By EDWARD BALLARD, M.D.Lond., late Physician to the St. Pancras Royal General Dispensary, etc.

CASE. Mr. C—, aged 30, residing at Retford, by occupation a cabinet-maker, requested me to visit him at seven P.M., September 5, 1849, in consultation with Mr. W. Gylby, his ordinary medical adviser. That gentleman informed me that the patient, although well capable of following his employment, did not enjoy habitually robust health, but that there had at no time been any indication that he suffered at all from renal disease. It appeared that, on September 4th, he was occupied for four hours in a house where some persons had died of cholera, (located there by several intolerable nuisances around it), in measuring one of these persons for a coffin, etc. He was of a timid disposition, and had an impression on his mind, that he should be attacked by the disease. In the course of the morning of the 5th, he was seized with diarrhœa; and at 2 P.M., after having eaten his dinner, vomiting and epigastric pain supervened. At the time I saw him, he was discharging frequently the regular choleraic evacuations, and shortly began to suffer from cramps in the legs and abdomen. He was ordered acetate of lead in pills, with acetate of morphia; flannel bandages were placed upon the legs, and he was "packed" in blankets. The pills having been vomited, calomel was substituted for the lead, and effervescing draughts, with hydrocyanic acid, were given.

September 6th. We found that the vomiting and purging had been but trifling during the night, his skin was sweating abundantly, and the cramps had been less frequent. His hands, however, were purple, shrivelled, and cold; voice feeble; pulse small, and intermitting at each third beat; breath cool, but not so cold as is often observed; he was complaining much of dyspnœa; urine quite suppressed; cold water, if drank, caused a return of the vomiting and cramps. Six ounces of blood were taken from the arm, with immediate relief to the dyspnœa, and return of regularity with increased fulness of the pulse. In the evening, he expressed himself much relieved; his voice was stronger, and breath less cold. The blood drawn in the morning presented a large coagulum of deficient firmness.

September 7th. He said he felt better. There had been no vomiting and no cramps, but I noticed that he was very restless, his eyes had an unnatural appearance, and when a question was put to him, he appeared to hesitate, as if in meditation upon it before giving his answer. Mr. Gylby informed me, that there had been a *bilious evacuation* from the bowels. In the afternoon of this day, some return of dyspnœa had induced Mr. G. to apply a blister to the epigastrium, which relieved it greatly.

September 8th. Mr. G. informed me that the patient had "vomited a quantity of pure bile", and that he had had some interrupted sleep during the night, and had passed another "bilious stool". The blueness had disappeared from the hands, and they were warmer; but there had been delirium during the night and this morning. The restlessness had remarkably increased; he was tossing about in all directions upon the bed, and there was the same expression of the eyes as on the day before. From time to time he drew a deep sigh. The pos-

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sibility of pericarditis suggested itself to my mind, as explanatory of the observed phenomena, which I had noticed under similar conditions before. On examination of the cardiac region, which I consequently made, I found the first sound of the heart defective, but not quite lost; and accompanying the second, and extending partly into the interval, there was a *very obvious friction sound,* audible over the situation of the base of the heart only. The heart's dulness on percussion was not increased. Six leeches were applied over the situation of the friction sound and followed by warm poultices; and his calomel and morphia were continued. Some carbonate of ammonia had also been added to his draughts. When I visited him in the after part of the day he was asleep, and had passed another bilious stool. The evacuations were all thrown away prior to my visits, probably from dread of infection.

September 9th. I was informed he had slept soundly during the night, and had passed no urine, although I had directed that any he passed should be preserved for examination. I found him in the morning in a state of stupor, from which he could only be partially roused; but there was, notwithstanding, the same tossing about the bed from one side to the other, and throwing about of the arms, as noticed before. The pulse was imperceptible at the wrist, *and the friction sound was double, and extended over the whole cardiac region.* At noon, he died. An examination of the body was not allowed.

REMARKS. The principal interest which attaches itself to this case is pathological. A patient, in progress of recovery from the collapse of cholera, dies with the physical signs of pericarditis strongly pronounced, and with symptoms referable to the cerebral faculties, such as occur sometimes in that disease, and in connexion with uræmia. There are two matters to be regretted: one is, that the evacuations of urine (if they ever occurred) were allowed to be mixed with the stools, and so systematically thrown away; and the other, that there was no opportunity afforded of discovering, after death, the condition of the kidneys. Thus, therefore, we cannot, on the one hand, positively affirm that urine never was secreted, or being secreted, that the amount of urea discharged was defective; or, on the other, be certain that degeneration of the kidney had not been present prior to the choleraic seizure. These are points to which it is fair and proper we should not close our eyes. Still, it is to be recollected, that chemical analysis has shown that an inordinate quantity of urea in the blood is a condition which is remarked in the reactive stage of this disease, as well as in renal degeneration; that there was no history of renal symptoms prior to the occurrence of cholera; and that the pericarditis occurred just at that period when it was to be expected that uræmia, as the result of the cholera, would be most intense, and consequently most likely to produce its poisonous effects. Hence, even if renal disease had been proved to be present prior to the attack of cholera, it would still have remained in the highest degree probable that the latter, by augmenting the uræmia, had aided the former in poisoning the patient's blood. This at least may, I think, be fairly concluded from the case under consideration. Taking this view of the matter, I need scarcely say, that the pathological interest of the case lies in its connexion with the results of the valuable researches of Dr. John Taylor on the causes of pericarditis.

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