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NOTES OF THE FAMINE FEVER,

AS IT OCCURRED IN CROYDON, SURREY, DURING THE MONTHS OF JULY, AUGUST, AND SEPTEMBER, OF THE PRESENT YEAR.

By GEORGE BOTTOMLEY, Esq., Surgeon.

A considerable immigration to this neighbourhood of Irish poor always occurs during the summer months, occasioned by the demand for labour, afforded by the harvest, as well as by the hop-picking of the adjoining counties. About the middle of June in this year, it took place to a much greater extent than usual, as compared with former years. Nearly all the Irish patients who applied for parochial medical relief at this period, had evidently suffered from the privations of the famine, in the winter and spring of 1847, and had been compelled to make great physical exertions in order to obtain the means of accomplishing their journey to this country, and during its progress. The result was an influx of fever cases to the infirmary, during two of the summer months, which appeared to be greatest at the beginning of August. One hundred cases were treated as in-door patients, and seventy-four received attendance without. The former were Irish almost exclusively; the latter included a considerable portion of the town poor.

The same type of fever exhibited by the infirmary cases, which of necessity could be more closely watched than the others, was almost universally exemplified in each. It may be thus described:—The patient, on presenting himself, usually complained of great prostration of strength, pains in all the bones, constant thirst, no disposition to eat, and usually pain in the head. His appearance was haggard, countenance very anxious, the eyes sunken, and general condition emaciated. The pulse varied from 90 to 120, was small and compressible; the tongue was covered with a clear white coat, and exhibited nervous tremor. On questioning, it appeared that rigors were always experienced at the commencement of the attack; the bowels in some cases were constipated, but there was frequently suffering from diarrhoea. The history of the case elicited the facts of the patient having slept out for some previous nights under a hedge, or in a ditch, and of having walked some miles during the same or preceding days. On his appearance at the infirmary therefore, it might be calculated that for six or seven days successively he had struggled with the complaint. This condition was then evidently one of great depression and exhaustion of

the powers of life. The symptoms already enumerated would continue, with little alteration, for a week, during which time the skin was pungently hot and dry, and the urine scanty and high coloured. After the *primæ viæ* had been acted upon by laxatives, mild mercurials and diaphoretics were administered, usually in the following form:—

R. Hydr. Chlorid., gr. ij; Opii Pulv., gr. $\frac{1}{2}$; Ant. Potassio-Tartr., gr. 1-6th. M. Fiat pilula.

One pill might be given for four nights consecutively, or perhaps one, night and morning, as the case demanded. In others the Hydrarg. cum Creta., combined with Pulv. Ipecac. Co., secured the alterative and sedative effects which were required. Saline draughts were given frequently; free sponging of the body, with cold vinegar and water, was used with much advantage, and toast and water and barley water supplied liberally for drink. Diet to be low.

The most usual complication presented was a cerebral affection. This might occur in almost all the cases as a somewhat prominent feature of the disease. Cold applications to the head, which was often shaved, were constantly renewed; a blister to the nape of the neck was extremely efficacious, if the case became urgent.

At the end of the first week after admission, a kind of crisis appeared; after several hours of profuse perspiration, the patient's symptoms decidedly improving. The tongue began to clean, the pains in the limbs to abate, and all that was complained of was extreme weakness. At this point more substantial diet would sometimes seem to be indicated, and in another day or two the patient would earnestly request it. If the symptoms continued to improve under more nourishing regimen, as in the majority of instances was the case, for a few days all promised exceedingly well; but almost invariably by another week a sudden change would take place, the tongue became as coated as ever, and all the original symptoms would present themselves, apparently in as much strength as at first. The recurrence to low diet of course immediately followed, and the relapse was again treated as the primary attack, though usually it proved less obstinate in point of duration. The recovery would then take place very slowly, the longest remaining sequence being want of muscular power. Many weeks must elapse before anything like a complete re-instatement of the strength took place. Most patients, though apparently from their condition and spirits looking quite themselves again, found, on their dismissal from the

infirm, a much greater prostration of the vital powers than either they or any casual observer would have suspected. None, I should think, were able to engage in agricultural labour during the season. This conjecture I have been able to verify in several instances by personal enquiries since.

At the end of the first week referred to above, just as the system was throwing off the first onset of the febrile attack when the arterial action was diminishing, no local congestions presenting, and the digestive functions seemingly in a more healthy condition; the crisis would frequently result in a different course. After two or three days of apparent quiescence, which might be presumed on the whole to be something like general improvement, a yellowish line would appear down the centre of the tongue, then dryness and a slightly cracked appearance followed; the pulse became weaker, and gradually sank to 60 or 70; the countenance wore a more anxious expression, and there was disinclination to food. On the exhibition of port wine or brandy, as the state of the case might seem to indicate, these symptoms would perhaps gradually subside, and the recovery take place without the relapse, as in the foregoing instances; but in a few cases complete typhus ensued, with all the usual symptoms of great nervous depression. These were treated by the constant exhibitions of concentrated nourishment, and stimulants when the power of swallowing was in abeyance; strong beef-tea injections supported Nature until her powers rallied. Ammonia and quinine in connection with small opiates were administered according to circumstances, and with close watching and constant attention, the third week would nearly bring the patient through the severity of the attack, which then left him in an exceedingly weak condition. Here, especially, though the rule applies generally to every case, the greatest care was necessary in directing the advance towards convalescence. That it should be sure, it was absolutely necessary to be also slow.

In reviewing the general character of the fever in question, it is worthy of remark that the complications were those of the head and mucous lining of the intestinal canal. In three patients jaundice occurred, terminating fatally with one of them; and in one or two only, was there any tendency to chest affection as a consequence of the fever. From the foregoing details it will be apparent that the form of fever described approaches nearly to that known as the "simple continued," the "synochus" of Cullen; but a strong tendency invariably existed towards a termination in one of a low nervous or typhoid type. Keeping this in view the indications were plain,—viz., to be as sparing of antiphlogistic treatment as the case would allow, discarding the use of the lancet altogether. It should be remarked that this plan was literally adhered to, for in no one instance was venesection performed. Even in the administration of mercury, antimony, and purgative medicines, great care not to be too liberal in the use of depressants was necessary, and to commence the exhibition of nutritious diet, however small the quantity, as soon as the stomach was enabled to perform its functions;

while the first tendency to exhaustion was promptly met by stimulants, cautiously and gradually afforded according to the urgency of the symptoms, with strict attention to the cerebral affection, when evidenced by a comatose condition of the patient, insensibility of the pupil, subsultus tendinum, by means of cold applications and counter-irritation of every kind.

One case illustrative of the latter remark is, I think, deserving of notice. It was that of a young Irish woman, of large frame and apparently good constitution, who furnished perhaps the most seemingly hopeless case of typhus in the infirmary. The head symptoms just referred to, had continued without any favourable intermission for three days. The insensibility was so great that it was almost impossible to arouse her. Strong sinapisms to the calves of the legs produced but very slight proofs of her consciousness of the application. She resisted every attempt to make her swallow any liquids, so that during that time not two ounces of wine or beef-tea were conveyed to the stomach, nor had there been any motion from the bowels. On the evening of the third day a full drop of croton oil was administered, the result of which seemed almost magical. In the course of the night two or three stools passed freely, and in the morning the cerebral symptoms disappeared. She was able to recognize her attendants and to answer questions. From that time she gradually improved and has since recovered, though marked traces of the severity of the attack will long remain.

It is worthy of remark that there was not much ground for believing the fever to be infectious, as infection appeared to arise only from the accumulation of cases in one ward, the air becoming so impregnated with noxious effluvia, emanating from their bodies, that those who came in contact with it suffered such as miasmata would produce arising from any other source, and by separating the patients, the appearance of infection immediately vanished. Those who were suffering from it were distributed indiscriminately among other patients in each ward, as the principle adopted was to divide as much as possible the cases, and not to accumulate them in one apartment. With unremitting attention to ventilation and cleanliness, points of the utmost importance, especially in the treatment of the Irish, I believe little or no danger of infection existed. Had separate wards been devoted to the fever patients alone, I have no doubt the results would have been far less favourable, while under the plan adopted the other patients have not suffered. Two out of six nurses, who were engaged in constant attendance, were attacked, and exhibited the type of disease described in rather a severe form; but this is not surprising, if we consider the very arduous character of their engagements at this period. The number was by no means adequate to the duty, and great difficulty existed to retain even their services, the night work being severe, and the daily attendance of a most trying character, owing to the condition of the patients. I acted on the principle of providing full and stimulating diet for them, while I recommended to the visiting clergymen, the only precaution which

I and those who assisted me adopted—namely, the taking a glass of wine and a biscuit before entering the wards, and not the slightest fever symptom appeared to those brought into contact with the sick. I have little doubt that the result would have been much less satisfactory had our fears of danger led us to make fever wards, and so to concentrate the miasmata, which it was our grand object to disperse.

The mortality was as under:—

In-door cases 100—Deaths 3

Out-door „ 79— „ 1

I have no hesitation in attributing this very small mortality chiefly to the unlimited supply of stimulus and concentrated nutriment which I had it in my power to afford; and to the constant, kind, and watchful attention with which the much-respected matron of the infirmary and our experienced nurses seconded the directions of the medical attendants.

Croydon, November 20, 1847.

EXTENSIVE DILATATION OF THE AORTA, SIMULATING ANEURISM; ULCERATION OF THE LINING MEMBRANE; PARALYSIS; SOFTENING OF THE BRAIN.

By GEORGE NORMAN, Esq., F.R.C.S., Senior Surgeon to the Bath United Hospital.

(Read at the Quarterly Meeting of the Bath and Bristol Branch of the Provincial Medical and Surgical Association, September 30, 1847.)

The Rev. Mr. P., aged 43, of large stature and robust appearance, excepting that his countenance was sallow, became my patient in the middle of May last. He had been subject during the previous four or five years to rheumatism, occasionally severe, generally attacking the muscles, but at times the large joints. About two years ago he began to find some difficulty in walking up-hill, and going up-stairs, and to have occasionally excessive throbbing of the heart; and soon after it was observed that the pulse at the left wrist was small and indistinct, whilst that of the right was full and hard, but at that time there was no intermission. He was supposed to have aneurism of the aorta, and was treated by small bleedings, rest, and low diet.

About twelve months since he had an attack of violent pain in the head, and in about an hour after, a numbness and loss of power in the left arm and leg, without any loss of consciousness. These symptoms soon ceased and his arm and leg were restored to their full power in a few days. About three months before he came to Bath he had an inflammatory attack accompanied by great pain in the back and left side, which was supposed to arise from inflammation of the kidney, and he was bled repeatedly.

He came to Bath in the middle of May last, when I first saw him. He had then no other pain than occasional muscular rheumatism; his pulse at the right wrist was full, hard, and generally about 80, and similar in character to what is usually felt where there is an hæmorrhagic tendency; the pulse at the left wrist was small and indistinct; there was great throbbing over the region of the left ventricle, and

the heart occupied a larger space in the chest than natural. There was no sound indicating aneurism, or valvular obstruction, but the excessive pulsations of the left ventricle were continued in the course of the ascending aorta. He could lie on either side, could walk with ease on level ground, and complained very little, excepting of rheumatic pains.

In this state he continued with but little change till the middle of June, when he experienced occasional paroxysms of severe cough, with some bloody expectoration and difficulty of breathing, but both the cough and the dyspnoea would entirely disappear for days. About this time he was carefully examined by Dr. Davies and myself; there was no evidence of any disease of the lungs or of the pleura. The action of the left ventricle was excessive and extended upwards in the course of the aorta. There was an indication of roughness in the internal lining of the aorta, and of a thickening, but no obstruction of the valves, and no sound indicating aneurism; the left ventricle was enlarged. We considered that there was hypertrophy of the ventricle, thickened valves, and dilated aorta; but we could in no way account for the state of the pulse at the left wrist. The urine, which before had been in sufficient quantity, now became scanty, and his legs to be œdematous. He was put on a course of mercury, with squill and digitalis. For a short time there was some improvement, but the attacks of dyspnoea soon became more frequent and distressing. It appeared that some pressure on the trachea either occasioned or aggravated the cough, for often the cough and difficulty of breathing would entirely cease for some days, and then return generally in the night, with increased violence.

In the beginning of July he was suddenly attacked with palsy of the left side, without any pain in the head, or loss of consciousness. He was bled, and the blood drawn had a thick buffy coat, and whenever he was bled afterwards, which he was several times in small quantities under urgent symptoms, the blood always exhibited the same inflammatory appearance, and he was always relieved by the bleeding. The power of the left arm and leg returned, to a certain degree, the next day, and afterwards gradually improved, but was never entirely restored. The returns of dyspnoea now became much more frequent, and he lost strength daily. A few days before his death, which occurred on the 31st of July, it was observed that during the attacks of difficulty of breathing, there was a sound in the upper part of the chest, as of some loose substance flapping backwards and forwards, audible to those standing by the side of the bed. On the day of his death he was seized with a violent attack of dyspnoea, with faintness, and intermittent pulse; he became exhausted, and died in a few hours. The body was examined on the following day.

On opening the thorax, both pleural cavities were found to contain a large quantity of fluid, from one to two quarts in each; there were no adhesions between the pleural surfaces, with the exception of an elongated band, of some standing, extending from the lower margin of the right lung to the upper surface of the diaphragm; both lungs were emphysematous, but