

the excitability of the brain and spinal chord.

The ammoniacal sulphate of copper added to the first fluid vomited in the above case produced a grass-green precipitate. Arsenic was also found at the bottom of the vessel, which, streaked on writing-paper, when a stick of lunar caustic was drawn several times over the moistened part, became yellow. The streak was rough, curdy, and flocculent.

ACCOUNT OF A
CONTAGIOUS EPIDEMIC PUER-
PERAL FEVER
WHICH PREVAILED
IN AYLESBURY,
AND ITS VICINITY, IN THE AUTUMN
OF 1831.

By ROBERT CEELY, Esq., Surgeon to the
Buckinghamshire Infirmary, Aylesbury.

THE disease about to be described appeared in three distinct forms, which, for practical purposes, may be denominated—

- I. The acute inflammatory (synchoid?).
- II. The low typhoid (acute?).
- III. The insidious (synchoid?).

1. *The Acute Inflammatory Form.*

This occurred chiefly in the young and robust, confined with the first child, and was characterized by the following

Symptoms.—On the second or third day, not unfrequently a very few hours after delivery, rigors, occasionally slight, generally severe, succeeded by fever and quick pulse; acute pain in the hypogastrium, back, and loins, radiating to one or both groins, and suddenly extending to the epigastrium; sickness, retching, and eructations; constipation of the bowels; lochia diminished and depraved; painful micturition, more commonly complete retention of urine. The uterus very voluminous, often extending into the umbilical region, exquisitely tender. The whole abdomen soon became tumid, more or less tympanitic, and very tender. The vagina and os uteri very hot, and highly sensitive to the slightest touch.

The pulse was rapid, seldom less than 120; at first rather small and contracted, firm but compressible, sometimes full and soft; skin sometimes hot and dry, not unfrequently perspiring; intense thirst; tongue either white and moist, or rather dry and brown; countenance alternately

flushed and pale, anxious and dejected; expressive of severe suffering and deep distress; voice and manner gentle and subdued.

The posture of the patient was generally inclined to one side, the head and shoulders somewhat elevated; the body gently bent forward, and the thighs slightly flexed on the pelvis.

As the disease advanced, the *atio* became short and anxious; the unremitting pain of the hypogastrium and abdomen increased; the vomiting and borborygmi were very distressing, and excited by every bodily movement, or the introduction of liquids into the stomach; the urine became altogether suppressed; breasts flaccid; lochia either completely extinguished or very scanty and highly vitiated, or fetid; the uterus more voluminous, and the abdomen more tympanitic; invincible constipation; *erysipelas of the vagina and pudenda*; pulse 140 to 160, fuller, firmer, *but not hard*, though bounding; heat of skin and thirst increased; tongue drier and more loaded; countenance more anxious and distressed; features sharper; intolerance of the least movement, or the slightest pressure on any part of the abdomen, till the fourth, fifth, or sixth day, when symptoms of rapid sinking of the powers ensued, and speedily terminated the patient's sufferings, the head being clear to the last.

In two cases, in the course of the disease, I noticed a tense, colourless, painful swelling, apparently under the fascia covering the carpus of the right hand.

Treatment.—The treatment consisted in early and liberal, general and local blood-letting, large and frequently repeated doses of calomel and opium. From ten to twenty grains of the former, and from one to two, or more, of the latter every two or three hours, *so as quickly and indisputably to affect the gums*, and restore the functions of the abdominal and pelvic viscera; cold evaporating lotions constantly applied to the abdomen, loins, and vulva; and low diet.

2.—*The low Typhoid Form.*

Symptoms.—This form generally commenced on the first, second, or third day, after delivery, with severe rigors, excessive languor, and extreme prostration, with pallid, sunken, anxious, and dejected countenance; lividity of the lips and tongue; pulse rapid, 120 to 130, or more; small, weak, and oppressed; temperature of the skin seldom, at first, much raised, generally moist; hypogastric or uterine tumour very voluminous and extremely tender, often occupying the umbilical region; notable abdominal tympany, and

general tenderness, but not so much as in the hypogastric region; vomiting; eructations; pain in the back and loins; retention or suppression of urine; lochia sensibly depraved and nearly suppressed; bowels constipated; vagina and os uteri hot, and very tender to the touch. The general and pathognomic symptoms of the preceding forms, but in a more exalted degree, indicating an entire abolition of the functions of the abdominal and pelvic viscera, accompanied, however, by an overwhelming languor and prostration. The symptoms rapidly advanced; erysipelas soon became visible on the pudenda; milk, urine, and lochia, totally suppressed; sickness and retching almost incessant, especially on motion or swallowing; *invincible* constipation. For a few hours, on the second day, the pulse would rise, and acquire more volume and greater strength, but this was of short duration; it again became weak and more rapid, 140 to 160, or more. The uterus became enormously voluminous; considerable tympany and increase of tenderness of the abdomen; quick, short breathing; cold clammy sweats; rapid sinking, with the mind calm and collected, anticipating the approaching event, which took place on the second or third day of the disease. In one case I observed a colourless painful swelling over the right carpus.

Treatment.—Blood-letting (general) was generally impracticable, always highly pernicious; local depletion utterly unavailing. Nothing but the production of rapid and decided ptyalism afforded the slightest chance for the unfortunate patient. Not less than twenty grains of calomel, and two, three, and, occasionally, four grains of opium, every two or three hours, according to the severity of the symptoms, could be safely confided in; and even these doses, in many cases, if not commenced at the moment of attack, and sometimes even *by anticipation*, were inadequate to the intended effect.

Cold evaporating lotions to the abdomen, loins, and vulva, were grateful to the patient, alleviated pain, and repressed the tympany.

3.—*The Insidious Form.*

This division comprises the more deliberate approach of the two preceding forms, and was observed to arise from the first to the thirtieth day after delivery; commonly about the third day.

The Symptoms of course varied in degree and character, as the case happened to be mild or otherwise, as tending to the production of one or other of the above-mentioned forms.

Chills, either slight or altogether ab-

sent; more or less pain and tenderness of the hypogastric region, sometimes remittent; uterus *slightly* tumid, and always more or less painful to the touch; abdomen impatient of pressure; slight tympany in women who had borne several children; anorexia, nausea; faintness, languor; pale dejected countenance; constipation; painful micturition; milk and lochia more or less diminished; thirst; pulse from 85 to 90, either small, weak, and oppressed, or full, soft, and compressible. Turning in bed painful, and done with caution, and some distortion of the features; the relaxed posture preferred. Often no material alteration would occur for several hours, perhaps a day or two, when, suddenly, a severe rigor would usher in one or other of the above forms of the puerperal disease.

The Treatment consisted, in the milder cases, in administering without delay ten grains of calomel, followed in an hour or two with a dose of castor oil or sulphate of magnesia; both of which were repeated in three hours, if the *characteristic constipation* were not freely relieved. Fomentations and poultices to the abdomen and vulva were also used, and a cautious diet was enjoined. If the symptoms were with difficulty relieved, or speedily returned, or the weak pulse was accelerated to 95 or 100, or the intestinal secretions were much depraved, which most commonly was the case; calomel and opium, in the doses of five to ten grains of the former, and one to two of the latter, were repeated every three, four, or six hours, till the gums were tender, and the secretions restored. If the pulse acquired force with frequency, a full bleeding was at once instituted, and the mercurial action accelerated.

Post-mortem Appearances.

I regret that circumstances, over which I had no control, precluded my instituting an inspection, after death, of the acute inflammatory cases; the following account of the autopsy in two cases of the *Low Typhoid form* will be interesting:—

A highly narcotic and sickly woman, aged 45, who had been attacked, on the third day after an ordinary labour of the fourth child, with the low typhoid form, with incessant and very severe pain in the hypogastric region especially, as well as with all the pathognomic symptoms in an exquisite degree; and who from this cause, as well as an unfortunate delay in the application for assistance, perished on the third day of the disease.

The uterus appeared more than twice the healthy size at a corresponding period after delivery. Its peritoneal covering, as

well as that of the fallopian tubes, as far as the fimbriated margin, exhibited numerous vessels copiously injected, and of a dark vermilion colour. At this extremity of each tube the mucous membrane was highly injected, and of a dark mahogany colour, covered with a dark grumous mucus; on slitting up the fallopian tubes to their origin in the angles of the uterus, the same appearance was visible throughout; the *mucous* membrane of the uterus was in precisely the same state. The substance of the uterus was perfectly healthy. A few streaks of vermilion vessels appeared on the ovaries. On the right side, a portion of the ilium near the fallopian tube, the cæcum, the ascending, transverse, descending, and sigmoid colon, and the upper part of the rectum contiguous to the fallopian tubes, in patches, presented the same inflamed appearance. The great omentum was in the like condition; the injected vessels were few, large, and of a dark vermilion. On reflecting this, the subjacent small intestines were similarly inflamed, but not to a great extent. Not the slightest trace *anywhere* of adhesion, or of the presence of coagulable lymph. About a pint and a half of a whey-like fluid in the cavity of the pelvis and abdomen. The peritoneum everywhere else was healthy.

In the second case of the same form, occurring in a weak, unhealthy, strumous woman, the mother of several children, on the *thirtieth day* after delivery, and terminating on the third day of the disease, the uterus was not larger than is usual at such a period, nor was its peritoneal covering inflamed; but all the appearances above enumerated, though generally in a slighter degree, were essentially the same.

General Observations.

This epidemic and contagious puerperal disease appeared early in October 1831, during the prevalence of an epidemic and contagious erysipelas. The erysipelas appeared in a mild, a phlegmonoid, and a low typhoid form, with the usual characteristic and pathognomic symptoms. The parts affected with the erysipelatos inflammation were generally the tonsils, uvula, and fauces; but such was the erysipelatos tendency, that wounds of all kinds, contusions, simple abrasions, and common attritions of the cuticle, seemed to ensure to an individual exposed to the epidemic or contagious cause, an attack of one or other of the three forms. A common catarrhal exposure, at this period, was sure to lead to erysipelas of the fauces &c., and the occurrence of one such case in a house, in a very short time led to a communication of the disease, in its several

varieties, to most of the nurses and attendants. Its contagiousness was as palpable to us as that of the small-pox.

Although the majority of the cases terminated favourably, after a longer or shorter duration, yet a few, generally emanating from contagion, and having other localities of the erysipelas instead of, or in addition to, the tonsils &c., were attended with all the topical and general symptoms of poisoned wounds, and speedily terminated unfavourably.

Many of the cases which ultimately recovered, were tediously and painfully protracted; for, instead of the topical affection of the throat subsiding within a week, with a diminution of the fever, this still continued; the erysipelas gradually made progress along the floor of the nurses, and soon appeared on the face, spreading over the head, extending often to the back, chest, loins, and nates; giving rise to the necessity of evacuating several large purulent depôts under the fasciæ of the parts affected; and leaving the patients in a deplorable state of debility. The disease continued to prevail for nine months, during which time it extended, principally by contagion, to the adjoining villages; and was frequently seen to originate in those places from a case of the puerperal disease. That the two diseases had a common origin; that the puerperal disease and the prevailing erysipelas were identical, and each capable of producing the other, was soon beyond a doubt,—every puerperal case giving rise to numerous cases of the common epidemic, in the persons of the nurse and attendants. The puerperal disease then was esteemed a mode of the prevailing contagious epidemic:—it was erysipelas of the mucous membrane of the vagina and uterus, extending into the abdomen through the fallopian tubes, and from them, by contiguity and continuity of surface, to the parts above described.

Persons of all ages and both sexes were alike obnoxious to the evil influence of the general epidemic; and few exposed to the operation of the contagion in its common or puerperal form, could withstand its power beyond seven or eight days, seldom so long.

The Puerperal disease.—The period of invasion, though generally on the second or third day, I thought, in some instances, coeval with the parturient process. The more severe and protracted the labour, the greater probability—nay, the certainty—of an early and severe attack.

The tumid and tender uterus, with a rapid pulse, were infallible signs of the existence of this formidable disease, and their degree and extent the measure of danger.

The occasional retention of urine, or its constant total suppression, with the invariable constipation, dissipated all possible doubt, and at once pointed out the extension of disease. The countenance, voice, posture, and manner of the patient, so striking and so truly pathognomic, agreed in every particular with the graphic delineations of Dr. Marshall Hall;* every puerperal case giving rise to numerous cases of the common epidemic in the persons of the nurse and attendants.

Treatment of the Acute Inflammatory Form.

The lapse of twelve hours before the use of remedies in this form of the disease was a serious evil. V.S. was even then well borne, but was not of ultimate benefit, because ptyalism could not be induced, nor could any action on the kidneys or bowels be effected. The blood was always buffed and cupped. The pulse rose after bleeding, and from 50 to 80 ounces were abstracted, but to no good purpose, unless the system was simultaneously, and within three days, fully under the mercurial influence.

In a healthy young woman aged twenty, confined with her first child, in whom the puerperal attack appeared on the third day after delivery, within six hours, 22 ounces of blood were taken from the arm, and twelve leeches applied to the abdomen, and a scruple of calomel in gruel was given every three hours.

Eleven hours afterwards being much relieved, but the symptoms not sufficiently abated, twelve ounces more of blood were taken, and twelve more leeches applied to the abdomen, and the same dose of calomel was repeated at the same intervals, till two drachms had been taken. In 24 hours the mouth was sore, the symptoms all essentially better, all the secretions being re-established, and the patient consequently safe.

At a later period of the attack, however, and under less favourable circumstances in the general health, and *especially where the pain was severe*, it was found absolutely necessary to combine opium in doses of one or two grains with each scruple of calomel, every two or three hours, to ensure an alleviation of pain, and accelerate ptyalism, blood-letting still being used according to the strength of the pulse. In two cases, at the commencement of the epidemic, blood-letting, very early and copiously and locally used, with scruple doses of calomel and saline purgatives, administered, so as to keep up a constant catharsis, by pre-

venting the mercurial action on the system, failed to avert a fatal issue. In these cases not less than three and four drachms of calomel had been taken without the slightest influence on the gums, and, consequently, I had the extreme pain and mortification to lose what future experience taught me ought to have been saved.

In general there was no need of any assistant purgatives; in fact, they were clearly pernicious. The large doses of calomel, even with one or two grains of opium, gave two and three evacuations in 24 hours, increased the deficient urine to a copious flow of dark liquid, like a strong infusion of black tea, and, with the affection of the gums, speedily restored the impaired or suspended functions of the pelvic and abdominal viscera.

Treatment of the Low Typhoid Form.

This form occurred for the most part in the weakly and neurotic who had previously borne children.

In the treatment of this form the delay of four or five hours in combating the symptoms was surely fatal. The excessive languor and extreme prostration, and the early advent of sinking, rendered the production of ptyalism too frequently impracticable. Indeed the only mode that could be safely depended upon was,—in all case; where an attack seemed probable from the nature of the labour, or the constitution and circumstances of the individual,—as soon as possible, even during the progress of, or, at latest, contemporaneous with, the completion of labour, to commence with ten or twenty grains of calomel, and one or two grains of opium, every three or four hours, according to the probabilities of the case; so that the mouth might be affected in time to avert a fatal event.

The following case I am persuaded was saved only by this mode of proceeding; and even here it will not fail to appear very remarkable, that so much calomel could be taken before the gums were even tender:—

Case.—A corpulent, florid, masculine, hard-working woman, the mother of several children, who, according to custom, had suffered severely for three days and nights in tedious labour, during which time she had taken calomel and opium largely, at intervals, according to the pain, in addition to strong mercurial cathartics, and *3i Hydr. Submur.*, and three grains of *Opium*, three successive nights, with great relief, was, on the 8th of March 1832 in the afternoon, delivered of a large child. I expected a ferocious attack of the puerperal disease. *Immediately after delivery*, therefore, I ordered a powder of

* See "Elements of Diagnosis," &c. In this and in all his works, so distinguished for perspicacity, fidelity, and precision, I have inserted a motto—"Indocti discant; ament meminisse periti."

3i *Hydr. Submuriat.*, and gr. iv *Pulv. Opii*, which was repeated at bed-time. During the night, at intervals of three hours, ten grains of *Hydrarg. Submur.* and two grains of *Opium* were taken, and $\text{m} \times \text{Tr. Opii}$, inter singul. pulv., si alvus persoluta sit.

9th, eleven a.m. Slight rigors; distressing languor and lassitude; hot skin; thirst; pulse 125, small, oppressed; lochia diminished, pale, fetid; hypogastric and umbilical region tender and tumid; uterus painful and voluminous, twice the size it was yesterday; flatulence; nausea; urine deficient; dysuria; countenance anxious and distressed; augmented by the attempt to turn in bed. Ordered cold evaporating lotions to the abdomen, back, and vulva, and *Hydrarg. Submur.* 3i; *Pulv. Opii* gr. iij; 3tis horis.

Post meridiem. Pulse 118, rather fuller; has had three dark and offensive stools.

Ten o'clock at night. Pulse 110; easier; less tympany; three offensive stools; urine rather increased, dark green; scarcely any sleep; pain in hypogastric, iliac, and lumbar regions, abated. Ordered gruel and broth. Continue the powder 3tis horis, and tinct. opii, $\text{m} \times$, inter sing. pulv., si persoluta sit alvus.

10th, nine a.m. Had a little sleep at brief intervals; pain abated; skin cooler; perspiration; thirst gone; pulse 96, fuller, soft; countenance calm; has had two dark offensive motions; urine copious, dark-green; lochia more abundant and rather florid; expresses herself not only greatly relieved by the cold applications, both from pain and tympany, but fancies the lochia are increased as often as the cloths are renewed. Abdomen softer; uterus more contracted. Continue broth, &c. Persist in usu pulverum ut antea.

Meridie. Passed *three pints of dark-green* urine, not coagulable by heat; pulse 104, fuller, but soft.

Vespere. Pulse 102; abdomen rather more tympanitic; urine frequently and copiously voided with ease; general abatement of pain. Haust. Rhei s. s. Repet. pulveres ut antea, inter noctem.

11th, a.m. Bowels open three times; motions ameliorated; pulse 103, small; feels weak and faint; *gums tumid*. Ordered coch. ampl. vin. albi, and applied the abdominal bandage with much relief.

Meridie. The head evidently incommoded by the opium; omitted it, and gave 3j *Hydr. Submur.*, to be assisted by Saline Cath. mixture, 2da q. hora donec resp. alv.

Vespere. Pulse 108, fuller; slight hiccup; less tympany; gums more tender and tumid; breasts painful and distended with the milk.

12th. Mouth and gums painful; all the symptoms improved. Took Saline Effervescing medicine, beef tea, &c. &c. Vin. Albi coch. 2 ampl. 3tis horis. From this time, with the assistance of opiates and ol. ricini, with light and nutrient diet, with a small allowance of wine, the recovery was progressive and complete. From the 4th of March to the 11th inclusive, more than seven drachms of calomel had been taken, with correspondingly large doses of opium, before the mouth was really affected.

General blood-letting, *even within the first or second hour* of the attack of the typhoid form, was, by the pulse and general appearance, not likely to be beneficial; and Dr. Marshall Hall's test rendered it impracticable or nearly so; as scarcely more than three or four ounces of thick, pitchy blood could be *squeezed* from an ample opening. Leeches, blisters, and sinapisms, were worse than useless.

In the course of ten or twelve hours, the pulse rose and became fuller; but remained still, soft, and weak; if *then* an attempt at venesection were made in the semi-recumbent posture—the sitting posture being altogether impracticable from the aggravation of pain—eight or ten ounces of a brighter blood often might be with difficulty procured, to the manifest detriment of the patient, and of course the creation of another impediment to the institution of the mercurial action. Nothing but calomel and opium in large and frequently repeated doses, proportioned to the severity and rapidity of the symptoms, could be relied upon. As in the preceding type, so also in this, the catheter was not unfrequently called for at the onset; after this, no urine was secreted, if the cure did not proceed favourably. *Cold applications*, instead of fomentations and poultices, were decidedly beneficial, and preferred by the patients; and when the mouth became sore, the abdominal bandage was of much service.

Treatment of the Insidious Form.

This form being slower in its approach, I need scarcely say, with the exercise of due vigilance on the part of the practitioner (and woe to him who confided in the observations of nurses and attendants), was manageable, and always susceptible of a favourable determination; amply rewarding him for his unremitting attention and anxious solicitude.

The extreme danger of the puerperal disease when fully formed, and the continued prevalence of the contagious erysipelas, induced me at length to administer to every patient whose circumstances and whose labour seemed to justify the expect-

tation of an attack, as soon as delivered, from five to ten grains of calomel with the usual opiates 4tis horis, so as gently to affect the gums by the third day. The duration of the *general* epidemic was nearly three months after I adopted this plan, and not a single case of the *puerperal disease*, of any importance, during that period, occurred; although my intercourse with the erysipelatosus disease was undiminished, and the cases of midwifery quite as numerous. This system of prophylaxis, I trust, will not be condemned by those who have had personal experience of the danger and difficulty of managing so formidable a disease in country practice.

Aylesbury, Nov. 14, 1834.

DRS. HUTCHINSON AND DAVIDSON.

To the Editor of THE LANCET.

SIR,—In noticing Dr. Davidson's letter of Feb. 21st, I shall confine myself to a brief narrative of facts.

Upon the publication of the case of Thomas Moss in *THE LANCET*, Dr. Davidson, without any previous intimation to me, made a complaint to the Committee of the Hospital, that I had violated one of its laws, by abstracting the treatment of a case under his care from his Case Book, without his sanction: immediately upon hearing this, I requested Dr. D.'s presence before the committee, and gave an explanation, with which Dr. Davidson declared himself perfectly satisfied. This result is recorded upon the minutes of the Weekly Committee's reports. Here I concluded that this affair had terminated, but I was subsequently informed by a medical friend, that Dr. Davidson had circulated in a Book Society to which I do not belong, observations reflecting upon my conduct in the publication of the case; I immediately wrote to Dr. Davidson, requesting and requiring to be informed what these were: I wrote three times, and received none but evasive replies: irritated by which, I addressed the letter to you, which has appeared in *THE LANCET*.—Dr. Davidson is quite correct in stating that before the Committee I gave my word of honour as a gentleman, that I had told the apprentice, Mr. Creek, to ask Dr. D.'s permission to have a copy of his treatment; this pledge I repeat, and solemnly affirm that I did request this of the apprentice, but it appears that he misunderstood me. I could anticipate no objection from Dr. D. because he knew, as well as I did myself, that it was my intention to publish the case. The copy from Dr. D.'s book, which

the young man sent down to my house, I transmitted to a medical friend in London, on the loose sheet upon which it was written, with my remarks upon the case, requesting him to read them before a society to which we reciprocally belong, if he thought proper, and then to send a fair copy for publication in *THE LANCET*. So persuaded was I that this report had received Dr. Davidson's supervision, that I did not examine it; and suppose that the errors which Dr. D. complains of must have thus arisen.*

My motive in publishing the case, was to draw the attention of the profession to an alteration in the blood, which had also been observed in other cases of diabetes mellitus; but which had not been sufficiently insisted upon, and which very probably has been present more frequently than it has been noticed. The unworthy motives which Dr. Davidson has attributed to me I utterly disclaim, and can assure him, that as far as I am concerned, they have no existence excepting in the pruriency of his own charitable imagination. I preferred Dr. D.'s reports to my own, because when the patient was under my care, the nature of his disease was very equivocal; a considerable period elapsed before he entered the Hospital under Dr. Davidson. Diabetes mellitus was then clearly established, and I considered it desirable that the treatment should be given, up to the period of the poor man's death.

The vulgar personalities and inventions in which Dr. Davidson has indulged, excite no other feelings in my mind, than those of pity and contempt: I have considered the above explanation as due to the readers of *THE LANCET*, and to myself, and I have the honour to remain your very obedient servant,

R. HUTCHINSON.

Nottingham, Feb. 25, 1835.

March 2nd.—The last virulent attack which Dr. Davidson has considered it to be consistent with his character to make upon me (published since my letter of the 25th February was sent to the Editor) is totally unworthy of consideration. It bears with it its own refutation, and its utter imbecility is its own best antidote.

R. H

* Viz.—“*Mist. Croton. Co.*,” for *Mist. Creta Comp.*; and “*Acid. Hydrocyan. ʒj*,” for *Acid. Hydrocyan. gtt. i.*—What reader of *THE LANCET* could be misled by such errata as these?