

ART. II. *Annual Address on PUERPERAL FEVER, delivered before the Society, February 7, 1832, by JONATHAN EIGHTS, M. D. President.*

GENTLEMEN OF THE SOCIETY,—

From the earliest period of medicine to the present day, the subject of fever, or febrile diseases, has more than any other connected with the healing art, engaged the attention of physicians. And yet, notwithstanding all the study and research bestowed on it, it is not yet exhausted either in a theoretical or practical point of view.

It has truly been said, that in many branches of knowledge much time and labor are necessary to establish a single important fact, and of some parts of medical science this is undoubtedly true, but in none will the observation apply with more propriety than as it relates to febrile diseases.

The subject of fever is no doubt one of the most important which can occupy the time, the talents, and the attention of a physician; especially when it is considered that it is the great outlet of human life, and that nine out of ten of the human race are cut off by febrile diseases. Yet, notwithstanding the importance of the subject, and the great attention bestowed upon it by men of exalted minds, and extraordinary capacities for investigation, and although many important facts have been established, which are of much practical utility, the true nature of fever, or its immediate operation on the human system, or, in other words, the proximate cause of fever, is still enveloped in mystery.

Almost every physician who has written on this subject, from the time of Hippocrates, has entertained different opinions respecting the origin and cause of fever. By one class of writers, it has been located in the solids, by another in the fluids. By one, it has been attributed to spasms of the extreme vessels, by another to debility. By one, to sympathy, while another has considered it altogether symptomatic, and merely the result of a local affection. By one, it is seated in

the brain, and by another, in the mucous membranes of the stomach and intestines.

At the present period, however, two principal doctrines respecting fever, divide the medical world. The first, and which no doubt has the greatest number of adherents, contemplates fever as an idiopathic disease, and although frequently, yet not necessarily connected with inflammation in any particular organ or structure of the human body. The other, views fever as nothing more than an expression of a local disease, and that disease as inflammation. This last doctrine has again branched out into three different opinions. The first is entertained by those who believe that the local inflammation is sometimes in one organ or structure of the body, and sometimes in another, but that it is always present somewhere, and that fever cannot exist without it. The second opinion is, that the mucous membranes of the stomach and intestines are the seat of fever, that it is purely a local affection, and that inflammation of those parts is the true cause of fever; whence it radiates to every part of the system. The third opinion is, that the seat of fever is within the parietes of the cranium and of the vertebral canal, making an inflammation of the brain, its membranes and appendages, the exclusive proximate cause of fever.

Many of these theories have flourished, and have now passed away, and nothing remains but a record of the hypotheses on which they were based, and the splendid names by which they were supported. Such, probably, will be the fate of some of those which are the prevailing theories of the present day.

The doctrine that fever is an idiopathic and general disease, appears to me to be the most rational, and to rest on the most solid foundation, being supported by facts drawn from close observation, and from the effect of fever on the organs and structure of the human body, and evidenced and confirmed by post mortem examinations.

I cannot better express my own sentiments respecting the nature of fever, and its operation on the human system, in

stronger and more appropriate language, than in the words of a learned and enlightened physician of our own state, which I take the liberty to quote on this occasion.

“Fever is a disease of the whole system, it appears no less in all the faculties of the mind, than in all the functions of the body: It shows itself in every organ of our frame, and affects every nerve and fibre of our system. The absorbing, excreting and circulating system of vessels are all affected by it. It shows itself in all the fluids of the body as well as in the solids—in a word, it is omnipresent, it has no one pathognomonic symptom, but is constituted by a concourse of symptoms, and these variously combined in the various forms, that fever assumes, depending on the causes whence it proceeds, and the condition of the body in which it occurs.”

From the various opinions respecting fever adopted by physicians, it must naturally happen, that much diversity of sentiment will exist in the treatment. It is not my intention, however, now, to pursue this interesting and important subject; my object, on this occasion, is to offer some remarks on a disease of peculiar character, and on which as much diversity of opinion exists as on fevers in general.

The disease to which I allude is **PUERPERAL FEVER**, and it may truly be termed the scourge of the lying-in-chamber. It is, indeed, the most fatal disease to which lying-in-women are subject, carrying dismay and terror to all around.

Historical traces of puerperal fever may be found in most of the ancient writers, from the father of medicine downwards. Hippocrates has described it (although not in name,) with more distinctness than most other diseases, thus furnishing us with a striking instance of the superior penetration and judgment of that great physician. It has also been described with much exactness by Galen, Celsusætius, Avicenna, and their successors, to the times of Sydenham, Van Swieten, Boerhaave and Hoffman. Strother, about the year 1716, wrote particularly on this disease, and first termed it puerperal fever. From his time, every writer on the diseases of women,

and on the practice of midwifery, to the present day, have turned their attention more or less to the subject.

Unfortunately for suffering humanity, the records of medicine, and the experience of physicians, both of the last and of the present century, all bear testimony to the fatal nature of this disease.

Dr. William Hunter considered it so mortal as to cause the death of two-thirds of all the women who died in childbed ; and he was, in the habit, in his lectures, of informing his pupils, that in whatever manner it was treated, three out of four would die. Dr. Hulme, who wrote an excellent treatise on this disease, declared it was as much to be dreaded as the pestilence or the plague ; and Denman considered it in the same light. Dr. Clarke observed, that the most experienced practitioners were staggered at the mortality, and embarrassed in the treatment of puerperal fever.

In 1770, it prevailed extensively in the city of London, and so mortal was it, that 13 out of 19 died. Dr. Gordon, of Aberdeen, who has paid much attention to the subject, states, that between the years 1789 and 1792, out of 77 patients laboring under this disease, he lost 28 ; and of later writers, Hey, Armstrong and Gooch, who have devoted much time and attention to this disease, and who have favored the world with their experience on the subject, all bear melancholy evidence of its extreme mortality.

But although all agree on this point, yet much diversity of opinion exists as to its pathology or true character. This difference in sentiment often arises from false reasoning, and often from prejudice in favor of some particular theory. The ancients, without the aid of dissections, came to the conclusion that it was a highly inflammatory disease, and that the uterus was always the seat of complaint. Their remedies, therefore, corresponded with this opinion. The various sentiments which at present prevail, may be comprised under the following particulars :

1st. That it is an inflammation of the uterus.

2d. That it is an inflammation of the abdominal linings and intestines.

3d. That it is simple peritoneal inflammation in a puerperal state.

4th. That it is an affection sui generis, and only peculiar to lying-in women.

5th. That it is a putrid disease.

6th. That it is a bilious disease.

7th. That it is a peritoneal inflammation, accompanied with typhus fever, and also that it is an infectious disease.

Neither time, nor the limits of this discourse, will permit me to examine these different opinions in detail. I shall only notice some of the more prominent points on which physicians differ, and which may, in some measure, influence the treatment.

That puerperal fever is a pure inflammatory affection in its original state, not only the symptoms attending the progress of the disease; but the dissection of bodies dead of it, fully demonstrate; and however discordant the opinions of physicians are on other points relative to it, there is great uniformity in describing the primary symptoms, and the post mortem examinations. The essential symptoms, which are pain, tenderness over the abdomen, a fever with rapid pulse, would of themselves characterize this disease as inflammatory, besides every feeling and expression of a patient from the time it is ushered in, clearly confirm this truth. If rigors, a quick, firm corded pulse, acute fixed pain, tumefaction, increased heat, be considered as the leading symptoms of inflammation in general, it cannot be denied that the fever under consideration is of that character. Of late writers, Gordon of Aberdeen, Richter, professor of medicine in the university of Göttingen, White, Denman, Hey, Armstrong, and Gooch, of England, all bear testimony to the inflammatory character of puerperal fever.

Dissections also prove the truth of the above mentioned opinions. In every instance where they have been made, the organs of the abdominal cavity and of the pelvis, are found to

have undergone the usual changes which extensive inflammation effects on their structure. The inflammation of membranes lining cavities, when suffered to proceed to a termination, is usually by extensive effusions of serum and coagulable lymph. In every instance where examinations have taken place, after a fatal issue to puerperal fever, large collections, amounting to several pints, have been discovered, with evident marks of inflammation of the membrane, from which the fluid exuded. The same result is also witnessed in inflammation of the membranes of the brain and thorax.

The effects of inflammation are also discovered by extensive adhesions of the abdominal viscera, occasioned by large quantities of coagulable lymph deposited into their convolutions and their interstices, giving them the appearance of one confused mass.

European physicians, in their writings respecting puerperal fever, consider it under the characters of epidemic and sporadic. The former, in its spread, is attended with uncommon mortality ; the latter is an accidental disease, and more easily controlled than the epidemic species. From a careful review of the history of those epidemics, including both their symptoms and the appearances on dissections, I can discover no essential difference either between them and their sporadic form of disease, and that which falls under our own notice.

In this, our happy country, many of those fatal epidemics which have been, and still are, the scourge of the old world, have, by a kind and beneficent Providence, been prevented hitherto from visiting us. Whether that dreadful and mortal epidemic, which is spreading with such amazing celerity and so universally, throughout the old world, carrying dismay and terror in its train, will be permitted to visit us, is only known to Him who disposes of all events according to his own good will and pleasure. Should it be our lot, however, to experience its influence, I trust, that, like many other epidemics, common to both Europe and this country, it will be shorn of its malignancy and mortality.

An epidemical puerperal fever is only known to us in name, and I believe the annals of medicine in our country do not record a single well authenticated instance of this disease appearing as an epidemic. It is, in every instance where it does occur, a fever essentially complicated with inflammation of the uterus and its appendages, or of the peritoneum. It is a sporadic or accidental disease, depending on some circumstances which take place either before, during, or after labor.

It is true, that one instance is recorded, where puerperal fever made its appearance in this country in the character of an epidemic, or rather an endemic. I allude to the account given by Dr. Jackson of it, as it appeared in the county of Northumberland, state of Pennsylvania, in 1816 and 1817. From the 6th of November to the 29th of August ensuing, nine cases of puerperal fever occurred; but from the novel manner in which some of those cases were treated, viz. by brandy and other stimulants, some doubts may be entertained respecting the disease.

It has already been observed, that various opinions exist as to the true nature of puerperal fever, especially when it appears in an epidemic character. On reading the histories of these, however, as they have appeared in different seasons, and in different places, we may, in some measure, account for this discrepancy. It is a well established fact, that epidemics vary in their symptoms in various places, and under various circumstances. Physicians, therefore, have observed them under the particular characters that they assume in different places; have formed their opinions from the most marked symptoms which occur, and have described them accordingly. Thus, to one physician, it has appeared as a highly inflammatory fever, and to another, as a fever of a typhoid character; and both, no doubt, correct in the opinion they have formed of its true character, and in their description of it.

It is in the recollection of many members of this society, that in the winter of 1812 and 1813, an epidemic prevailed extensively in this state, usually termed pneumonia typhoides. Any person unacquainted with its true character, on reading

the history of that epidemic as it prevailed in different parts of this and other states, and also the different modes of treatment found most successful, would suppose, that different diseases were described. In one part of the state, it appeared as a purely inflammatory disease, and copious bleeding, and a strict antiphlogistic course, were necessary to subdue it ; and every person not thus treated, died. In other sections of the state, and particularly in this city, it put on a typhoid character ; and in every instance where blood was drawn, the disease terminated fatally. In one place, the blood was marked with high vascular excitement ; in other places, the texture of the blood was broken down, and rarely coagulated.

Notwithstanding all that has been said on the subject of epidemical puerperal fever, by men of superior talents and of high standing in the profession, much doubt still remains in my mind as to the fact, whether it ever appears in that character. That puerperal fever often puts on that appearance, there can be no doubt ; but when it assumes this character, it is subordinate to, or under the influence of, some other prevailing disease. It is a well known fact, and agreeable to the laws of all epidemics, that all diseases, during the prevalence of some particular epidemic, assimilate to, and partake more or less of, its character. This fact has been fully confirmed during the present prevailing catarrhal epidemic, which has spread very generally throughout this state. The common complaints of the season have all been characterized by some of its most prominent symptoms, and indeed, to such an extent has this principle prevailed, that in many cases it is difficult to discover or recognize the features of the original disease.

Many of those physicians who have given publicity to their opinions relative to this subject, and who are advocates for the epidemical character of puerperal fever, acknowledge that other diseases were raging extensively, at the same time that it was prevalent : which of those had the predominancy, and gave the character to the epidemic, it may be difficult to determine. But, from reasoning on this subject, we might suppose, that where two diseases were prevalent at one and the

same time, the one known as a disease which frequently appears in an epidemical form, and the other of a doubtful character, there would be little difficulty in deciding correctly.

Dr. Gordon, who has already been quoted, and who first discovered a successful practice in this disease, says, "that erysipelas and puerperal fever began in Aberdeen at the same time, and afterwards kept pace together, and they both ceased at the same period."

Dr. Clarke, who had much experience in this disease, and has written particularly on this subject, says, "that during the prevalence of puerperal fever, eruptive diseases, particularly those which are attended with great prostration of strength, attacked a great number of patients. Scarletina, with and without ulcerous sore-throat, had been general. Most of the fevers had been of the low nervous and malignant kind, approaching to that type which has by some been called putrid. When inflammatory affections occurred, they were of the erysipelatous character."

Dr. Jackson, in his account of the puerperal fever of Northumberland, Pennsylvania, says: "It may be proper to mention, that during the prevalence of puerperal fever, all diseases were severely inflammatory. It has been observed by authors, that erysipelas has often attended the progress of the epidemic puerperal fever. It was likewise unusually common with us, and I am sorry to say it still continues. It has required copious bleeding."

From these references, the conclusion may fairly be drawn, that in the first, erysipelas was the prevailing epidemic, which, although uncommon in this country, is not unusual in Europe, and that parturient women, predisposed to disease from their situation, readily partook, in their affections, of the character of the prevailing epidemic.

In the second instance, scarlatina, with fever of a typhoid character, governed the epidemic influence, and the form assimilated itself to that.

In the third instance, synocha and erysipelas, highly inflammatory, were the prevailing epidemics during the appearance of puerperal fever.

That erysipelas appears often as an epidemic disease, we have the authority of Dr. Parr, who says, "That four times we have seen erysipelas epidemic, and more than once we had reason to suspect that it is communicated by infection." Dr. Mason Good, also observes, that erysipelas is occasionally epidemic, or operates through the medium of the atmosphere as well as by direct contact.

Dr. Thomas says, that "a peculiar state of the atmosphere renders erysipelas epidemic." In 1830, erysipelas appeared in the city of Paris as an epidemic.

It is worthy of remark, and it is a singular fact, that in most instances where puerperal fever appears in an epidemic character, erysipelas makes its appearance at the same time, and seems to be essentially connected in its character with that complaint; so that some authors have declared it to be one and the same disease.

Another feature of this disease which has divided the opinion of physicians, is its infectious and contagious character. From an examination of the numerous writers on this point, I think the weight of evidence is evidently in favor of those who contend that it is an infectious disease.

It is true that in this country, where puerperal fever occurs seldom, and is altogether a sporadic complaint, we cannot speak from experience, and we have wholly to rely on the relation of facts made by men whose opportunities have been frequent of observing the disease in its progress, and the various circumstances attending that progress. Much also depends on the character of the writer, both for candor and talents.

It must have fallen under the observation of every one who has paid attention to the subject, that puerperal fever appears more in the practice of one physician than of another. Within the circle of my own acquaintance, some practitioners have passed through a long period of extensive practice, and scarcely a single case of puerperal fever has occurred; while another, equally engaged, and not deficient in skill or talents, has had many cases to contend with.

Dr. Gordon says, "the disease (puerperal fever) seized

such women only as were delivered by a practitioner, or taken care of by a nurse who had previously attended patients affected with this disease"—and likewise, that he himself, has been the means of conveying the infection from those affected to patients recently delivered, and that midwives and nurses had done the same.

Dr. Armstrong says, "that in 1813, during the prevalence of puerperal fever, out of 43 cases in the town where he resided, 40 occurred in the practice of one physician." He also relates several other instances of the disease appearing only among the patients of particular practitioners.

Dr. Gooch confirms the above opinion. He relates, that in 1824, while puerperal fever was prevalent in the city of London, and in its neighborhood, and proved very fatal, several instances occurred of its prevalence among the patients of particular practitioners. One instance of this kind is so remarkable that I take the liberty to quote it. "A practitioner in large midwifery practice, lost so many patients that he determined to deliver no more for some time, but that his partner should attend in his place. This plan was persevered in for one month, during which not a single case occurred in their practice. The elder physician being then sufficiently recovered returned to his practice, but the first patient he attended died of puerperal fever. A physician who met him in consultation afterwards, about a case of a different kind, and who knew nothing of his misfortunes, asked him whether puerperal fever was prevalent in his neighborhood, on which he burst into tears, and related the above circumstance." Dr. Gooch also says, "that among the cases which I saw this season in consultation, four of them occurred in the practice of one physician in one month, and all of them terminated fatally." He is also of opinion, that it can be communicated by the clothes of a physician who has attended a case, or been engaged in dissecting a body dead of this disease, or from a nurse who has been engaged in washing the clothes or waiting on a woman laboring under this complaint.

Dr. John Clarke says, that puerperal fever if once generat-

ed, is capable of being propagated by infection, and in this way, it is communicated in hospitals and proves fatal to a great many women. Such, then, being the sentiments of men who have had extensive opportunities of investigating this disease, I believe little doubt can remain as to its infectious character. It will, however, be observed, that these opinions are formed from observing puerperal fever under epidemical influence, and a conclusion might be drawn, that although it may be infectious under that character, yet it does not possess that quality in the sporadic form. Puerperal fever I conceive in all cases, to be an idiopathic or original disease, and although it may appear more frequent, and be attended with greater mortality under epidemical influence, the organs are affected, and the termination of the disease are alike in both. I also conceive that sporadic puerperal fever after the inflammatory stage has passed by, does possess more or less of an infectious quality. It may not, indeed, possess it in so active a state, but it may in such a degree, as to induce a physician while attending a puerperal case, to be cautious and to adopt such measures as may prevent its being communicated to any other particular case he may be called to while in attendance.

Another point in dispute respecting this disease, is its location or primary seat. That it is inflammatory in its original state is granted, but the peritoneum by many is considered as the only part originally affected, and that it is this affection which gives character to it. The term, peritoneal fever, or peritonitis, has accordingly been applied to it. Others contend that the uterus is the part or organ primarily affected, and that its appendages and the peritoneum are secondarily diseased. The ancients believed that the disease was an inflammation of the uterus, and the opinions of many eminent men, from the time of Van Swieten and Boerhaave to the present day, have strengthened the probability of their belief. Many of the symptoms during life, and dissections after death, also sufficiently prove the fact that this organ is most generally implicated, and often to a very great extent. When the uterus

and its appendages are affected with inflammation, we readily suppose that the excitement will pass very soon from it to the peritoneum, and, vice versa, from the peritoneum to the uterus. This fact is illustrated in inflammation of the membranes of the brain, where the disease readily passes to the organ itself. Thus it appears evident that this inflammation is progressively spreading, from one point to another, until the uterus, the ovaries, peritoneum, omentum and intestines are involved in one common disease.

If proof be wanted to establish the fact that the uterus is the organ primarily affected, I would refer to the account of this disease prevailing in the lying-in institution at Vienna, in 1819. It was attended with such uncommon mortality that an investigation was ordered by the government. The result of this enquiry was, that almost in every case that was examined after death, there were evident marks that the primary disease was in the uterus. One fact worthy of notice is stated, that, although in the institution it was so general and mortal, not a single case occurred in the city; evidently showing it was propagated by contagion. Hospital gangrene and typhus fever were also prevailing in the institution at the same time.

Although such diversity of sentiment has existed among medical men, from the time that purpereal fever first became an object of attention and investigation, the late pathological researches made in Paris, in 1829, during the prevalence of this disease in the lying-in hospital, or Hospital of Maternity, as it is usually called, must, in the mind of every unprejudiced man, be satisfactory, that it is essentially an affection of the uterus.

From the number of cases that occurred, and the mortality that ensued, great and numerous opportunities were afforded for minute examination of the diseased structure of the organs involved in the complaint; and to the honor of those who had the medical charge of the institution, no chance was lost to profit by it.

From these researches it appears, that inflammation almost

in every instance was present in the uterus, and in many of them there was no apparent affection of the peritoneum. When this occurred, it was chiefly when death took place suddenly, or the disease progressed with great rapidity. An appearance, worthy of remark, was observable in those examinations, which evidently throws much light on this subject, and that was an inflammation of the veins and lymphatics of the uterus. It commonly commenced in the torn mouths of the vessels, where the placenta had been attached ; in general, the signs of disease at this point were further advanced, and sometimes were met with no where else. When inflammation of the peritoneum did occur, it was always greatest in that part which immediately covered the uterus.

Many other instances are related, which confirm the opinion that the uterus is the principal and primary organ affected in puerperal fever, and that the contiguous parts become affected from this source.

From the result of the above investigations, we may come to the conclusion, that when the contents of the gravid uterus have been expelled in parturition, the orifices of the uterine veins, where the placenta had been attached, are left open, and most probably a communication is indirectly formed between the venous system and the atmospheric air : such a condition of the uterine veins, in consequence of the separation of the placenta, must be favorable to the production of inflammation, which, once excited, is seldom limited to the orifices of the vessels, but extends, with more or less rapidity, along the continuous membranes of the veins of the uterus, until a general affection is produced. The muscular substance of the uterus also becomes affected from this local source ; this is communicated to the peritoneal covering, and the usual symptoms of puerperal fever will ensue.

Having thus, gentlemen, considered some of the prominent features of puerperal fever in a general point of view, especially those on which much diversity of opinion exists among medical men, I shall proceed, in a brief manner, to consider it

more especially as an accidental or sporadic disease, and particularly as it falls under our notice.

However discordant the accounts given, and the opinions entertained by physicians, respecting this disease, under different circumstances, may be, yet with us there is no complaint more uniform in its symptoms, its progress, and in the morbid derangement which ensues. The same train of symptoms follows each other in regular succession, and sad experience teaches us that the result is generally fatal.

This complaint usually commences between the second and fourth days after delivery, and instances have fallen under my notice as late as the fifth. A soreness or tenderness is first complained of in the hypogastrium, usually confined to the uterus, which organ can be distinctly felt somewhat enlarged and tender, so much so as to cause complaint when examined externally; a rigor or shivering soon succeeds, which continues from half an hour to two, and often three hours. The pain and tenderness, which before were confined to the uterine region, become more diffuse, and spread over the whole abdomen, which becomes full, tense, and tender. The pulse, which, before the rigor, was from 80 to 90, now increases in frequency and hardness, so as to number from 120 to 130, and often to 140. As the disease advances, the pulse increases in quickness and feebleness; great difficulty is experienced in moving, and particularly in turning to either side, in bed. The patient usually lays on her back, with the legs drawn up, dreading the slightest touch. The milk, if secreted, disappears, and if not formed, the secretion of it is suspended. The lochia diminish gradually, and finally cease altogether. The abdomen increases in size, until it becomes as large as before delivery. The bowels are usually constipated, and remain obstinately so, until a late period of the disease, when diarrhoea often succeeds. Respiration is always quickened, not from any thoracic affection, but from increased circulation; from the distension of the abdomen, and from the pain which a full inspiration occasions. Nausea and vomiting frequently attend, rendering the exhibition of medicine diffi-

cult, and its operation uncertain. The tongue is generally moist and white, but as the disease advances, becomes brown in the centre, and dry. The thirst, from the commencement, is urgent, and eructations and belchings of wind from the stomach, frequent. The countenance is expressive of extreme distress, and is usually destitute of animation. A listlessness and indifference to surrounding objects occurs, and the patient presents an aspect of anxiety and despondency.

From the symptoms described, little difficulty will be experienced in recognizing this complaint, when due attention is paid to it. Acute pain in the lower part of the abdomen, rendered more so by pressure, frequent pulse, hot skin, hurried respiration, and much uneasiness on motion, are the most characteristic symptoms.

The commencement of this disease is, however, often overlooked by the physician's attributing most of the symptoms to after-pains. It is true, that the pains attending this complaint at its commencement, do, in some instances, resemble them, by being intermittent in some degree; but the intervals become shorter and shorter, until finally they become fixed and steady. They can, however, be distinguished from after-pains, by placing the hand on the uterus during pain. That organ will be found contracting in an after-pain, and no soreness will be complained of, on pressure.

It is also not unfrequently mistaken for that disturbance of the system, usually attendant on the secretion of the milk, termed the milk fever, and which often produces a high degree of excitement, owing, most frequently, to an improper indulgence in food and stimulating drinks. From this it can be distinguished also by the absence of pain or tenderness in the uterine region, and from a fulness of the breasts, which, in puerperal fever, are soft and flabby. It is also of an ephemeral character, usually terminating in twenty-four hours by perspiration, and often within that time by the operation of a cathartic.

There is a disease, however, not unfrequently met with in the parturient state, which, from its symptoms, so closely resem-

bles puerperal fever, as often to deceive a critical observer. It comes on a few days after delivery, with diffused pain and tenderness over the whole abdomen, and with the pulse somewhat accelerated. I have never observed it unless after the exhibition of a cathartic, acting too freely, and at other times not sufficiently, producing severe gripings, and an irritable state of the bowels. The usual remedies for inflammation, viz. bleeding, purging, &c. do much injury, and if persisted in, will prove fatal to the patient. Instances are on record of several who have died from active depletion, and upon examination, not a vestige of inflammation has been discovered, either in the uterus or peritoneum, and only a few ounces of colourless fluid have been found in the cavity of the abdomen. It is most frequent among women who are of delicate health and sensitive nerves.

This attack, besides the operation of a cathartic, may originate from severe and protracted after-pains passing into a permanent state, and not, unfrequently, no evident cause can be assigned.

The pulse, although somewhat quickened, is soft and feeble, and often perfectly natural; the skin remains cool, and the tongue clean, and no tumefaction or enlargement of the abdomen is discovered. These cases are not of themselves dangerous, provided the nature of them be not mistaken, nor improper remedies employed. The compound powder of ipecacuanha, warm fomentations, emollient injections, frictions over the abdomen, with anodyne linament, in every instance relieve it.

From the general character of puerperal fever, the vitality of the parts affected, and from the fatal termination of the greater number of cases that occur, be the treatment what it may, our prognosis must of necessity be unfavorable. An early attack is dangerous; long continued rigors, and a repetition of them denote a formidable disease—great tenderness and tumefaction of the abdomen, pain shooting up to the navel and epigastrium, laborious respiration, obstinate constipation, early diarrhea, without abatement of the pain or tume-

faction, or fever—great loquacity, a hurried, incoherent manner of speaking, indifference to surrounding objects, inability to move or turn in bed—a brown, dry tongue, sharpness of the features, all denote a state of great danger. While on the contrary, ability to move in bed without assistance, a natural position in laying, a clear moist tongue, a return of milk, a re-appearance of the lochia, the pulse continuing below 100, a warm, moist skin, with a return of affection for the child, all indicate a favorable termination of the disease.

In order that we may rightly understand the state of the system, which induces it to take on diseased action at the time of delivery, or predisposes to that event, it is necessary to consider the changes that the system undergoes at the time of conception, and during the gravid state. At a very early period after conception, an increased action or determination of blood to the uterine regions commences, and this is continued until the full time arrives. This action produces a state of plethora; menstruation ceases or is suspended, which also increases this tendency. This state continues, and the determination of blood goes on also, gradually increasing, to the full period. This blood is partly intended to supply the nourishment and growth of the fœtus, and partly to support the change which the blood undergoes in the placenta. From these circumstances we can easily conceive, that an enlarged state of the uterine vessels and of the adjacent parts is induced. The organ gradually increasing, produces a pressure on the surrounding parts, a free return of blood is prevented, and a congestion or distension of the vessels is the consequence. By a flow of blood after the delivery of the fœtus and placenta, this plethoric state is in some degree relieved, and when within due bounds, it is a salutary evacuation.

During labor, however, a febrile state is formed to a greater or less degree. The pressure of the enlarged uterus on the surrounding parts is suddenly removed, and the flow of blood to the uterus is by the contraction of that organ checked.

From such a condition of the parts, and the great change that takes place, both in the vascular and nervous systems, we

can readily imagine how causes, apparently trifling, can produce excitement and inflammation in parts predisposed thereto, and from a determination of blood to vessels, from their previous condition, most ready to receive it.

From a system thus affected, and from a predisposition in parts to diseased action, we may imagine how many circumstances unavoidable in a lying-in state can operate as exciting causes in producing this fatal disease.

Among very many others, the following are, perhaps, the most frequent causes in producing puerperal fever: Too much pressure on the abdomen, by an improper application of the binder; the sudden and forcible delivery of the placenta; the retention of the secundines; injuries before and during parturition, by violence, improper interference, and severe labor; the unnecessary, ignorant, and careless use of instruments; mental emotions; exposure to cold; improper use of stimuli and food; metastasis of the secretion of the milk, and an impure and confined atmosphere.

It will not be necessary for me to point out the operation of these several causes in producing an inflammation or excitement. It is a fact, well known, that they all more or less, are capable of causing it; and it is within the knowledge of every physician, who is engaged in this branch of his profession, that in almost every case that occurs, the origin of it, by careful examination, can be traced to one or other of those causes.

It has already been observed that there is no disease which falls under the notice of a physician of a more fatal tendency, than puerperal fever. And there is none in which nature, unassisted, can accomplish less, or art more. It is a complaint which, if neglected in the commencement, is sure to terminate fatally. The physician, however great his talents may be, can only be a melancholy spectator of distress he cannot alleviate, and of danger he cannot prevent.

From a review of the history, and from the symptoms of puerperal fever, and from the uniform proofs of inflammation which dissection discloses, there can, I presume, be but one

opinion respecting its treatment, viz: an early, active, and efficient practice to arrest and check the progress of inflammation before derangement and destruction of the organs involved in it take place.

The first remedy, then, which presents itself, which of all others we consider as the most efficient and on which we can rely to answer our intention, is *blood-letting*. This as a remedy, must be considered as a principal one. By this, more than by any other in the whole catalogue, we can control an overexcitement of the vascular system—its operation is prompt and effectual. Where we find the pulse firm and regular, we should not hesitate to use the lancet with freedom, and not to desist until the pulse is materially affected, and the system feels its influence. Its use ought also to be repeated as often as the pulse becomes hard, while the pain and tenderness continue. It is a true remark, that much harm is often done by bleeding too little, but seldom by bleeding too much. From my own experience, I am satisfied, that if early called in, we have little to apprehend from using the lancet too freely; and I am also persuaded, that in some cases we are often deceived by the feeble and contracted pulse, so characteristic of abdominal inflammation, and that many have been deterred from using this remedy, when it might have been applied with advantage.

Powerful and efficient as this remedy is, it has been urged as an objection to its use, that copious bleeding produces the effusions in the cavities, which are discovered after death. Whoever has paid any attention to this subject, must be satisfied that this objection is without foundation. The effusion which is the consequence of excessive bleeding, is well known to be a clear lymphous fluid, without any marks of inflammation in the parts where it is collected; on the contrary, effusions from inflamed membranes, are usually turbid, generally containing flakes of coagulable lymph, or dissolved purulent matter, and evident traces of inflammation are discoverable on the membranes from which it exudes.

Local blood-letting is a great auxiliary to general bleeding,

in subduing the inflammation, where an effectual check has not been given to it by a general evacuation. It ought never to be neglected, especially where proper means are in our power. Of so much importance is this remedy considered, that many physicians rely wholly upon it. A moment's reflection will satisfy us of the inefficacy of this remedy in subduing a general excitement of the system. In puerperal fever, there is a general disturbance of the vascular system, from an extensive local affection; the circulation is much increased, and a great determination of blood to the seat of the disease and the contiguous parts, is the consequence. By abstracting blood from the capillary vessels, while the force of the circulation continues, little or no benefit is experienced, because they are filled faster than can be abstracted by local bleeding; but reduce the general excitement, and much advantage will arise from emptying the capillaries contiguous to the seat of the disease, by local bleeding.

Cathartics. In the commencement of the disease, they are of infinite importance. At this period, the excitement is confined to the uterus and its peritoneal covering. By exciting the intestines, and increasing their peristaltic motion, the secretions will be increased, and congestion prevented or removed. From the consent of the uterus with the intestines, the secretions from its vessels will also be augmented, and a more copious flow of the lochia will relieve that organ. But when the disease has continued sometime, we may conclude, from the pains becoming general over the whole abdomen, and from the irritable state of the stomach, that the intestines are involved in the general derangement. Active purgatives, in this stage of the complaint, ought to be avoided. It is of the utmost consequence, however, to keep up a constant discharge; and we often witness copious and fœtid discharges, when it was thought that nothing remained in the bowels. Calomel, followed up with castor oil or Epsom salts, answers the intention, and operates with little or no irritation. Large emollient injections are also of much importance to aid the operation of cathartics, and to act as a fomentation to the internal parts.

They will soothe the feelings of the patient, and increase the secretion from the vessels terminating in the intestinal canal, and in the latter stages of the complaint, they are far preferable to cathartics by the mouth, as less liable to produce irritation of the stomach.

Fomentations. The utility of this remedy is universally admitted. Dr. Gooch, in his excellent treatise on puerperal fever, considers warm applications to the bowels in the form of poultices, of incalculable advantage. The warmth of a fomentation, or large poultice, is always grateful to the patient; it relieves pain, and excites perspiration: the excitement and circulation are drawn to the external surface, thus lessening, in some degree, the internal plethora of the vessels, and the irritation of the nerves of the affected parts. Where pain and irritation accompany inflammation, these warm fomentations are always useful. In puerperal fever, there is both; and heat applied externally relieves without increasing, but, on the contrary, lessening internal congestion.

Blisters. Much diversity of opinion respecting the use of this remedy exists. Although they have most generally been employed, yet late writers consider them as injurious. My own experience fully confirms this opinion; the pain and irritation which they occasion, over-balances any advantage that may be gained by their employment.

Diaphoretics. After the full operation of cathartics, a free perspiration is of the utmost consequence. By determining to the surface, we lessen, and often remove, local congestion. The pulv. antim. combined with calomel and nitrate of potass, forms an excellent preparation to effect this object.

Calomel. Besides the good effects it produces, in promoting the action of antimony, it is invaluable as a cathartic. It not only removes congestion in the hepatic organs, but allays gastric irritation, which is often a very troublesome symptom in puerperal fever. Where time is allowed to produce an affection of the gums, it has generally been attended with beneficial effects.

Oil of turpentine. This medicine was first introduced by

Dr. Brennan, of Dublin, into practice, as a remedy in puerperal fever. He speaks of its good effects in high terms of commendation. Experience, however, has not confirmed the reputation bestowed upon it by its author. In three instances in which I have used it, or seen it used, the result was unfavorable, the patients complaining of much burning in the stomach. As Dr. Brennan recommends it as a substitute for bleeding, I presume it was used by him in the early stages of the complaint. I should, however, consider it a more proper remedy in the tympanitic, than in the inflammatory stage.

Emetics. Although this remedy was, at one period, highly recommended, especially by the French physicians, I believe experience has not justified their exhibition. If they are ever useful, it must be in the cold-stage of puerperal fever, by diminishing its violence, and restoring action to the vessels on the surface of the body. At any other time, they must increase that irritation of the stomach, which is no uncommon occurrence, and which, at all times, is a distressing symptom. Although I cannot speak from experience respecting their use as beneficial or injurious, I should consider them as improper at so early a period after parturition, as that in which this disease usually makes its appearance.

These are the principal remedies usually employed in this highly dangerous and fatal disease; and happy would I be, could I recommend them as means which have in general proved successful. But I have to regret, that, although they may be fairly and judiciously administered, we are often disappointed in our hopes of success. But, gentlemen, you will perceive, that an early, active, and a persevering application, can alone be relied on. The short period of the inflammatory stage is the only time we can improve, and in which success is at all probable. By close attention, then, to the first approaches of this insidious disease, we may be instrumental in saving the lives of some of the most suffering, as well as fairest portion of creation.

Having thus, gentlemen, discharged, though imperfectly, the duty imposed upon me by the laws of the society, let me remind you, before we retire, of an event which we have all reason to deplore. Since the last anniversary of our society, death has removed from us one of our most valued and esteemed members, and a late president thereof, Dr. Alexander Coventry, of Oneida county. When we last met, he partook in our deliberations, and we were assisted by his counsel and advice. On a similar occasion to this, his venerable figure was before me. But he is gone, never more to return. We have, indeed, resolved to clothe ourselves with the badge of mourning, and to wear it in testimony of our esteem for his character and regard to his memory. But, gentlemen, you will indulge me for a few moments, while I notice briefly a few of the incidents in the life of our lamented friend and fellow member. I stand not here, however, as his eulogist. That duty, I trust, has been, or will be, performed by some one more competent than myself, to do ample justice to his character and his many virtues; but as presiding officer of an institution, of which he was a valuable member, I consider it my duty to pay this tribute of respect to the memory of one whom I esteemed while living, and whose loss to the community, as well as to our society, will be long felt and regretted.

Dr. Coventry was born at Fairhill, the seat of his father, Capt. George Coventry, near Hamilton, Scotland, on the 26th of August, 1766. He received his preliminary education in the schools of Hamilton and Glasgow, and studied the profession of medicine with Doctors Stewart and Cross, of Hamilton, in 1783 and 4. After having attended the medical lectures at Glasgow, in the winter of 1784 and 5, he repaired to Edinburgh, where he heard the instructions of Monro, (Secundus,) Cullen, Hope, and Gregory. It was from these ornaments of our profession, that Dr. Coventry drew his principles of practice, which, as is believed, guided him throughout his whole professional career. Some property which had been left to him by his father, requiring his personal attentions, Dr. Coventry sailed for America in July,

1785. He first located himself at Hudson, in this state, where he remained for about three years, actively engaged in the practice of his profession, and also in agricultural pursuits, to which he was much attached. In 1790, he removed to Romulus, on the west side of Seneca Lake, where he had a fair opportunity of studying the epidemic fevers of that district in all their varied forms. But in consequence of the repeated attacks which he suffered, and the sickness of his family, he removed to Utica, then Fort Schuyler, in 1796, where he continued to reside until the time of his death. It appears to have been his wish, when first settled in that place, to abandon the practice of medicine, and to devote himself to mercantile pursuits. But finding these not congenial to his taste and habits, and that professional calls were frequent, he was obliged to relinquish them entirely. He again, therefore, devoted himself to the practice of his profession, which, together with his favorite pursuits, horticulture and agriculture, occupied his whole time.

The estimation in which Dr. Coventry was held by his professional brethren, may be judged of by the facts, that he was for several years the president of the Medical Society of the county of Oneida; that in 1822, he was elected a permanent member of the State Medical Society; and in 1823 and 4, president of the same body. He was about the same time, appointed one of the trustees of the Western Medical College, and was also a member of the Albany Lyceum, and a corresponding member of the Linnean Society of Paris. On the organization of the Agricultural Society of Oneida county, he was appointed corresponding secretary, and delivered the first address before that body.

For forty years, Dr. Coventry kept a journal in which he noted daily, whatever he conceived useful and important in his profession, and in science. In this, no doubt, many useful and important facts are recorded—and from his known talent for observation and discrimination, it is hoped that the world will be favored with copious extracts from it, contain-

ing his private thoughts and views on many interesting subjects.

Dr. Coventry was an occasional contributor to the agricultural and political papers of the day. His principal medical writings, are his addresses before the State Medical Society, on endemial fever; a paper on yellow fever, published in the *Edinburgh Medical and Surgical Journal*; and a paper on Goitre, and one on Dysentery, in the *New-York Medical and Physical Journal*. These productions are all characterised by that practical talent and discrimination for which our lamented friend was so justly esteemed.

He was possessed of a fine and vigorous constitution, which added to his regular habits and frugal mode of living, enabled him to endure for many years, the fatigues of an extensive practice without any injury to his health. But with advancing years, these fatigues were insensibly making inroads, and preparing the way for the certain triumph of the destroyer. While engaged in professional business at the house of a friend, he was seized with the fatal distemper, the epidemic catarrh, which after an illness of two weeks, terminated his useful and honorable career.

As a practitioner of medicine, he was justly esteemed, and while he ever maintained the full and complete confidence of his employers, his professional brethren gave abundant testimonies of their high opinion of his skill and experience. By his death, the community in which he resided, has lost one of its most valued members, and our profession one of its brightest ornaments.