Puerperal Fever

by

Peter James Bergmann
Puerperal fever

This term was first employed by Dr. Struthers in the year 1716. The name is now generally employed by medical writers and it is considered to be synonymous with the terms "puerperal peritonitis," "childbed fever," "pelvic fever" or the epidemic disease of puerperal women.

The records of medicine afford inadmissible evidence of the fact that puerperal or childbed women have from the most remote periods of antiquity been liable to this destructive disease. In the works of the earlier authors its history is short and imperfect. Reid, according to Dr. Hume's researches, the older writers were not altogether unacquainted with this disease, as it is described
by Hippocrates & Avicenna, Plater (1602), Clemens (1656), Riverius (1674), and Seirius (1674), Willet (1682).

The earliest English writer on midwifery is Thos. Raynolds in 1634, who alludes to it. In the Childbearey, Gabriel 1653, Chap. xvi, we have directions how to "help the wringings & pressings of the belly in childbed women by outward and inward means and drinks."

We have also short notice of it in the works of the following authors: Stratham in his work on fevers (1716) also describes it.

Mrs. Joan Sharp in her "Complete Midwifery's Companion" (4th Ed. 1726) treats of "fever after Childbirth."

The disease is not mentioned by Jeford (1734), Chapman (1735-2 Ed.), Memis (1765), Coton (1750), or Cogh (1754). Cooper in his Compendium of Midwifery speaks of "fever arising from suppression of the lochia."

Dr. Denman in 1768 was the first
to publish a distinct essay upon the subject which was the first reference to epidemic puerperal fever. The form he described was inflammation of the peritoneum. In 1772 Dr. Hume published a treatise on the subject in which he describes an epidemic and attributes it to inflammation of the omentum. Shortly afterwards Dr. Leake in his work on diseases of women describes this disease, taking the same view of it as Dr. Hume.

In 1773 puerperal fever appeared in the Lying-in ward of the Royal Infirmary, Edinburgh. Dr. Moore in his book on Midwifery (1777) has a section on puerperal fever which he considers to be inflammation of many of the abdominal viscera and not the omentum alone, at least in bad cases. Dr. Hamilton, Sen. of Edinburgh (1784) does not mention it, but Dr. Spence of the same city in the same year in his System of Midwifery, devoted a chapter to it.
It was first noticed in Ireland by Dr. Joseph Clarke, who gives an account of it occurring in the Dublin Union Hospital in the year 1767. In 1787 it appeared at Aberdeen in an epidemic form and prevailed for about three years to a great extent.

In 1793 Dr. John Clarke of London in his work on the management of Pregnancy and Labour described it in different forms—such as "inflammation of uterine and ovarian," "inflammation of the peritoneum," "local inflammation connected with inflammatory affection of the system," "affections of the uterus from portions of the placenta left behind" "low child-bed fever."

Mr. Dun has described this disease as epidemic at Holloway near London in 1812. Dr. Armstrong in 1814 gives an account of it as epidemic consisting chiefly in an inflammatory affection of the peritoneum with or without fever.

In 1822 Dr. MacIntosh in his essay on the subject speaks of it as an in-
flamatory affection of the peritoneum and recommends free blood-letting and antidiphlogistics for its cure.

Dr. Hamilton jun. in his "Outlines of Diseases of Insanity" 1824 describes malignant childbed fever as a disease "sui generis."

Dr. Gould in 1829 in his work on diseases of women describes it as occurring in two forms — inflammatory and typhoid.

In 1833 Dr. Lee wrote copious details upon the various forms of this disease.

Dr. Collins of Dublin gives an account of infever fever as it occurred in the Lying-in Hospital in that city.


Amongst the early French obstetricians, the disease was known, but not as an epidemic. Vandet 1774, Pou 1694, Jaques Prebirthard 1753, J. A. Delamere 1770.

The epidemic in France of 1745 was characterized by suppression of the
Lockia. In 1750 the epidemic was manifested by severe abdominal pain and tympanitation of the hypogastrium. In 1764 the epidemic depressed itself by hemorrhage.

In 1812 Dr. Gastellier published a treatise upon purerperal peritonitis and its varieties. Capronon (1824) speaks of purerperal peritonitis as the only form of purerperal fever. Gardinier (1826) describes purerperal peritonitis with certain complications as constituting purerperal fever.

Epidemics

It is stated by Pan that in 1664 "a prodigious number" of women died in the Hôtel-Dieu of Paris after their confinement and the cause was attributed to impure air from a ward filled with wounded which was situated underneath the lying-in ward.

But the first undoubted epidemic of purerperal fever is that which prevailed in Paris during the winter of 1746. The disease has prevailed epidemic ally
ever since at different periods and the symptoms, post mortem appearances and result of treatment in each have varied so much, that different observers have been led to differ accordingly as to its nature, which must of them attribute to the local affection.

The following table includes as nearly as possible all the different epidemics with their local affections.

<table>
<thead>
<tr>
<th>Year</th>
<th>Locality</th>
<th>Local disease</th>
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</thead>
<tbody>
<tr>
<td>1664</td>
<td>Paris</td>
<td>Ulcerous Phlebitis</td>
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<tr>
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<td>Year</td>
<td>Locality</td>
<td>Local affection</td>
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<tr>
<td>1814</td>
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<td></td>
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<td>1834</td>
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<td>Uterine phlebitis</td>
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<tr>
<td>Year</td>
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<td>1845</td>
<td>Rennes, Paris</td>
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<td>1846</td>
<td>Rennes</td>
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</tbody>
</table>

**Mortality**

All writers are agreed that puerperal fever is the most universally fatal disease to which the parturient female is liable, and chiefly so in the epidemics of Paris 1764, Edinburgh 1773 & 1832, Brest 1795. According to Dr. Ferguson "of the 3000 that die annually in childbirth in England and Wales 7 out of every 8 are cases of puerperal fever."
The following table illustrates the mortality occurring in the practice of different individuals:

<table>
<thead>
<tr>
<th>Name</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Leake</td>
<td>19</td>
<td>13</td>
</tr>
<tr>
<td>Wm. Hunter</td>
<td>31</td>
<td>32</td>
</tr>
<tr>
<td>Dr. Clarke</td>
<td>21</td>
<td>28</td>
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<tr>
<td>Collin</td>
<td>56</td>
<td>88</td>
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<tr>
<td>Lee</td>
<td>40</td>
<td>100</td>
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<tr>
<td>Gordon</td>
<td>28</td>
<td>77</td>
</tr>
<tr>
<td>Campbell</td>
<td>22</td>
<td>79</td>
</tr>
<tr>
<td>Armstrong</td>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>Ferguson</td>
<td>68</td>
<td>2014</td>
</tr>
</tbody>
</table>

The disease prevails more extensively and is more virulent in hospitals than in private practice; it also more frequent among the lower than the higher classes.

Dr. Hamilton says, "The disease occurs chiefly among the lower classes who inhabit confined apartments in narrow, dirty ill ventilated lanes."

According to Dr. Collins of Dublin, pernereal fever accompanied by low typhoid symptoms is prevalent in hospitals, is scarcely known among
the higher classes in that city, and Dr Joseph Clarke in the course of forty five years most extensive practice lost not four patients from this form of the disease.

The cause of the prevalence of the disease in lying-in hospitals is the number of patients in a ward, the want of proper ventilation and the rapid succession of patients before the wards have been thoroughly cleansed as has been proved by the success which has followed the remedying of this evil.

Dr John Clarke says "every symptom of fever subsided as our patient were received into clean wards, of 150 admitted after our strict search none had any serious illness."

Dr John Burne writes "all writers agree that in hospitals it is particularly fatal and that few recover from it. In private practice the disease is milder, but still it is most formidable."

Dr Ferguson says "we have abundant evidence of the disease being most fatal
in hospitals; he considered this to be owing to the impurity of hospital air from bad ventilation.

"Whatever" says Froude, "favours the production of hospital gangrene favours that of uterine phlegmon," and Ferguson adds, "both in their severest forms are only to be seen in hospitals."

From the register of the British lying-in hospital, the Maternité of Paris, the Dublin lying-in hospital, and the tables of M. De Chateauneuf, it is proved that the average rate of mortality greatly exceeds that of establishments where individuals are attended at their own homes.

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Varieties

Different observers have classified the varieties of puerperal fever, some according to its pathology, and others according to its symptoms. Thus Dr. Douglas describes three forms.

1. Inflammatory
2. Gastro-bilious
3. A dynamie or entagines (Typhoid)
M. Bonetle
1. The inflammatory
2. The a dynamie
3. Ataxie (irregular or nervous)
M. Maretus
1. Inflammatory
2. Nervous
3. Cutia
Vigorous
1. Gastro-bilious
2. Cutia-bilious
3. Citirious (containing of putreous matter)
4. Hystentius (Phlegmatie)
5. Operaie (arising from cold)
Gardien
1. Angiometrie fever, strictly inflammatory
2. Adeno-meningitis, short infrared fever
3. Meningo-gastric, delious arrangement
4. A dynamie
5. Ataxie or nervous
6. Fever with local phlegmatia
Dr. Groce
1. Inflammatory
2 Typhoid.
Dr. Blundell
1. The mild epidemic with little peritoneal tendency

Dr. John Clarke
1. Inflammation of uterus and ovaria
2. Inflammation of the peritoneum.
3. Inflammation of the uterus, fallopian tubes, or peritoneum connected with inflammatory affection of the system.
4. Low fever connected with affection of the abdomen, which is sometimes epidemic.

Dr. Lee
1. Inflammation of the peritoneum
2. Inflammation of uterine appendages, ovaries, fallopian tubes, broad ligaments.
3. Inflammation of the mucous muscular or proper tissue of the uterus.
4. Inflammation and suppuration of the absorbents and veins of the uterine organs

Dr. Ferguson
1. Peritoneal form
2. Gastro-enteric
3. Nervous

Dr. Churchill
1. Peritonitis
2. Appendicitis
3. Inflammation of the appendage.
4. Uterine fibroiditis
5. Inflammation of absorbs.

Dr. Lecock
1. Acute puerperal peritonitis
2. Dyssynergic or malignant
3. Puerperal intestinal irritation
4. False peritonitis

Dr. Simpson
1. Inflammatory
2. Bilious
3. Dysynergic
Date of Attack

The time of the attack is most frequently on the second or third day after delivery, but Dr. Collins and Joseph Clarke have observed it before delivery.

According to the 204 cases recorded by Dr. Ferguson one was attacked as early as six hours after delivery and another as late as the 17th day, but by far the greater number on the second and third day.

In cases reported by Dr. Collins:

1 was 6 hours after delivery.
1 " 9 " " "
1 " 10 " " "
3 " 12 " " "
1 " 13 " " "
1 " 15 " " "
2 " 17 " " "
1 " 18 " " "
1 " 21 " " "
2 " 30 " " "
32 on the 1st day.
29 " " 27
8 on the 3rd day
2 " 4th
1 " 8th

The majority according to Dr. Clarke were attacked on the 2nd and 3rd day.
Denman says 3rd or 4th most common but may appear at least as late as 5th or 6th week.
Hume says 2nd day most common
Leake " 2 or 3rd
Butter " 2nd or 3rd
Soeck " 2nd, 3rd or 4th
Churchill " 2nd or 3rd
Gordon " 2nd or 3rd
Jimison " 2 to 10th

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Symptoms

Puerperal fever is usually preceded by languor.

1. Regurgitation generally occur in all cases of in the commencement of the disease, and recurrence of them during the course of the fever is unfavourable.

2. Pulse most commonly quick, small and weak, sometimes 160 in the minute and generally increases in rapidity as
the disease advances towards a fatal termination. When it exceeds 100 there is
need of watchfulness. Gordon has noticed it 100 to 120 full and strong at first, but
it grew gradually feeble and weak.
3 Skin hot, face flushed and anxious
expression of countenance, a succession
of crises succeeded with thinning.
In the Bilious form a yellowish tinge of
the skin has been noticed. Some
Consider general symptoms favourable
and the partial ones not so, especially
more confined to the face neck breast.
Hulme, Seale, Gordon.
4 Pain in the abdomen is more entirely
absent or only present for a time and
rarely so intense as to give pain by the
weight of the bed clothes (as seen in ordinary
peritonitis) - Sometimes not much on pres-
ture - if sudden and severe it always
develop. Denman says "pain commenced
first in the hypogastric region, then
whole abdomen, back, hips & groins
sometimes in one or both legs."
Pain has been observed most frequently
in the right side of the abdomen by Gordon and Churchill.

Dr. Ferguson has estimated the frequency of this symptom, and has found the number of his patients who had no pain was

<table>
<thead>
<tr>
<th>Pain for</th>
<th>1 day</th>
<th>51</th>
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<tbody>
<tr>
<td></td>
<td>2</td>
<td>48</td>
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<td>3</td>
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<td>18</td>
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<td>8</td>
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</tbody>
</table>

In some of Dr. Loereck's cases the pain was quite circumscripted.

Kirkland mentions cases without pain. Blundell considers it more favourable when circumscripted than when diffuse.

5. Symptoms very common and very frequent generally beginning in the iliac region. It occurs soon after the disease is established. General symptoms has been noticed by most observers, Lee, Loereck, Burns, Ferguson to.
6 Mental headaches. According to some authors common in some diseases, and in some not. Dr. Simpson, Blundell & Churchill has seen it in all his varieties among the first symptoms—commencing slight and gradually increasing. When it does occur itself it is very soon after the attack. It was not noticed by Derrman, Joseph Clarke, Gordon in Kirkland.

Tongue various. In Ferguson's cases some were clean, others loaded, white, fiery red, moist, dry and white, brown or black. Most observers have seen it more frequently whitish and moist in the commencement, and brownish or black in later stage especially if the disease is about to terminate fatally.

Stomach disturbed early, nausea or vomiting continue at intervals throughout the attack. Churchill, Ferguson, Gordon state that the contents of the stomach are ejected, then successively, green, brown, and black fluids constituting "coffee ground vomit" are vomited. This is noticed more particularly in fatal cases.
Thirst is a common attendant.


The evacuations are generally dark coloured and vary from a dark yellow to a brown.

At the approach of death the bowels are empliéd involuntarily. Sometimes the evacuations have been bloody.

10. Urine. “After albuminuric” says Simpson. It is generally voided frequently and with difficulty — in small quantity — often there is pain; it is turbid, high coloured, deposing a sediment varying in different individuals. Sometimes it is quite suppressed.

11. Milk. Simpson says if fever comes in before the secretion of milk, it never appears or if after, it is greatly diminished or suppressed. Also Churchill, Hey &c.

It does not continue till time of death and theREATs become placed.
According to Gordon it never appeared till after the crisis. Ferguson has seen it in some, beauty, in others variety, natural or absent. Denman thinks its qualities are altered.

12. Lochia may be natural, diminished in quantity or suppressed. Sometimes altered in character giving out an offensive odour. Creighton says it may be natural or suppressed according as the mucous membrane of the uterus is affected or not.

In 100 cases observed by Dr. Lee the lochia was suppressed in 44, offensive in 21. In 50 cases noticed by Amougson he had some derangement of the lochia—either absent, scanty or fetid. Out of 89 cases Dugès states there was suppression from the commencement in 25, in 27 from the 2nd or 3rd day, and 37 had no suppression or only very slight. Leake did not notice any alteration. In the majority of cases observed by Wilson, Gordon, Wallace and Hochstahl it continued to flow as usual.
Head in most cases little affected, but when delirium is present there is great cause for alarm for the great mortality which takes place among those who have this symptom. Out of 204 cases noticed by Ferguson, 98 had some head affection; of these, 43 had delirium and 39 died.

In 100 cases reported by Dr. Lee 34 had some cerebral affection and out of 12 of these which were delirious 15 died.

Gordon says delirium seldom occurs, and when it does, it is from neglect or bad treatment. He noted that when it did occur, only a few hours before death.

Cough frequently attends this disease and is generally troublesome in later stages. Dyspnoea and hurried respiration have occurred in the cases Butler, Dr. Hall, Burns, Lee, Ferguson Ve.

When low typhus fevers have been prevalent, some persons labouring under spurious fever, and living in low damp confined situations, have had along with it eruptions on the skin—sometimes white red, or both—generally appear first upon the neck.
and breast afterwards extending all over the body.

When the disease terminates favourably, it does so on the 3rd, 4th, or 5th from the attack. When fatal it is so from 5th to 10th day. The greater number die on the 5th day.

Prognosis

It is always unfavourable even in sporadic cases, but still more so when the disease is epidemic.

Ferguson considers it good practice to give two out of three.

The following are unfavourable omen:

Pulse continuing quick and small especially when accompanied by frequent respiration, diarrhea, frequent vomiting of green or black matter—dry brown or blackish mucus—thick tongue—foiled brown or blackish mucus—hiccough and subcutaneous tumours—cold clammy sweat—continuation of pain—want of sleep—patient unable
To be on either side, a fixed colour in the
cheeks with a livid hue, involuntary
shock of gases and urine and when
delirium occurs the patient seldom
recovers.

The favourable symptoms are
A gradual return of the natural sensations,
beating, quick to, diminution in the fre-
quency of the pulse, urine in good quantity
depositing a opaque sediment of a clay
or yellowish colour mixed with putrid
Gordon considers an erysipelas on the
extremities, or abscesses on different parts
of the body among the most favourable
symptoms, he also thinks diarrhoea coming
in early especially when the tympanation
of the abdomen is diminished by it is
very salutary.

Causes

Various are the causes assigned by
different authors for the production of
this disease.
Ancient authors ascribed the disease of childbirth to metastasis of the lochia. While especially believed in the deleterious influence of diseased lochia, it has been thought by some from the frequency in which the disease occurs in first labours (which are known to be the most tedious) that difficult labour is a cause of it. Although that cannot be established, no doubt it renders the patient more susceptible to the epidemic. Some attribute it "accumulation of vitious humour set in motion by labour". Others to inflammation of the uterus. Locke and Cooper consider violent mental emotions, stimulants and obstructed perspiration sufficient causes of this disease. Mental emotion is not now thought to act as any other than a predisposing cause, and this is established by the fact that unmarried females from the peculiarity of their moral situation are most subject to it, and when they take it do not recover so well as married ones.
Dr. Armstrong thinks it may be produced by various causes: contagion, activity of mind, too stimulating or too spare diet, night watchings, fashionable dissipation, and irregular habits of every kind which have a debilitating influence on the constitution. Cold is generally thought to be a predisposing cause.

Dr. Churchill considers hemorrhage may render the patient liable to the disease, and also intestinal irritation propagated to the neighbouring parts under the influence of an epidemic may cause it. Atmospheric influence seems to have some control over the disease, from the greater prevalence of it in damp moist weather than in warm dry weather, as the following table will show:

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**Dr. Campbell's Tables**

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**M. Dugès**

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Delineche of Geneva

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From the foregoing tables we may conclude that it is most prevalent in the months of January, March, November and December.

Some observers have attributed the occurrence of the disease to the following causes: "miasmata" "dampness of cold air to the body and into the uterus" "incuria"" suppression of lactal secretion" "diarrhea" "lactacity to changes in the humours during pregnancy" "building the abdomen too tight" "hasty separation of the placenta" "retained portions of the placenta" "atmospheric distemperament" "external superficial" "malaria" "phlegmata" "It appears some have taken symptoms for causes."
Mr. Ferguson from an analysis of the experiments of Gaspard and Chevalier has proved that "the phenomena of puerperal fever originate in a vitiation of the fluids; and the toxins which are capable of vitiating the fluids are particularly rife after childbirth."

Dr. Simpson considered the state of the uterus after childbirth with its open vessels and the matter in contact as analogous to a surgical wound, and hence accounting for the secondary evils of suppuration, being similar to those of the puerperal state.

Sloach on the contrary maintains that "the vitiated state of the blood is the secondary and not the primary bick in the chain of puerperal fevers and that it occurs in many instances in diseases of a similar character to puerperal fever where it could not arise from venous absorption." He looks upon mental depression and agitation, exposure to cold, retention of coagula and portions of placenta, mechanical injuries during parturition, from instrumental aid,
crowded and ill ventilated rooms — noticed exhalations — fatiguing attempts to buckle it merely as predisposing causes and considers the true cause of pyrexial fever to depend mainly on the nervous system through which the change is produced in the blood.

Graham, Campbell and Kirkland believe that retained putrid placenta or coagula will produce the disease.

Dr. Simpson says: "a piece of placenta remaining in the uterus may cause it, but not of an epidemic kind — also that it can be produced at will by causing the patient to breathe the exhalations from her own body, and want of cleanliness. Inflammatory effusions as from erysipelas may also cause it."

The origin of this disease by contagion has for a long time been a matter of dispute. In all diseases which are epidemic it is extremely difficult to decide upon the question of contagion, inasmuch as the cases which support most strongly the contagiousness of the disease may almost
all be explained by the prevalence of the
epidemic itself.
Drs. Hulme, Hall, Campbell, M. Bonneville
and Dugès are in favour of its non-contagious
nature; and Drs. Gordon, Hay, Boulton, Brown,
Dugès, Armstrong, Robertson, Hamilton, to
hold a contrary opinion.
Drs. Hulme maintained that it was not
more contagious than flux, ulcer, or
any other inflammatory disease.
M. Bonneville in his record of the epidemic
in Paris asserts that the idea of contagion
was clearly out of the question there, for
in the Maternité the women who were
nearly delivered had each a separate
apartment and yet were attacked with
the disease. While in the sick ward of
the hospital no instances of the propagation
of puerperal fever ever occurred.
The evidence of M. Dugès is not less
strong against contagion, for he states
that in numerous instances pregnant
women have been placed in the hospital
where they were surrounded by cases of
peritonitis without inducing the gene-

of the disease, and that still more frequently he has seen women newly delivered brought with some other complaint into the infirmaries who did not contract the malady, notwithstanding the intimacy which surrounded them. In no case had he observed a midwife charged with the care of two women at the same time communicate peritonitis from a sick to a healthy individual.

Dr. Gordon of Aberdeen states that he had unquestionable proof that the cause of the disease was a specific contagion, and not owing to any noxious constitution of the atmosphere. The disease seized such women only as were visited or delivered by a physician or taken care of by a nurse who had previously attended patients affected with this disease. "I had abundant proof," he observes that every person who had been with a patient in the puerperal fever became charged with an atmosphere of infection which was communicated to every pregnant woman who happened to come within its
Here.

Mr. Hey observes "I have known instances of free communication by the intervention of others between women in labour and those afflicted with the disease without any bad consequence. And on the contrary in many cases of puerperal fever no channel whatever was discoverable whereby the disease could have been conveyed."

Dr. Joseph Clarke, from his experience in the Dublin Hospital in 1787 & 1788 during the prevalence of puerperal fever, maintains that the disease is not contagious.

Dr. Armstrong observed that most of the cases in Sunderland in 1813 (40 out of 43) occurred in the practice of one surgeon and his assistant.

Dr. Burns mentions that in particular seasons a contagion has prevailed in causing fever in the puerperal state.

Dr. Denman considers puerperal fever contagious.

Dr. Campbell and Maitland have both published on puerperal fever.
and look on it as inflammatory and non-contagious.

Dr. Douglass divides the disease into three species, one of which is contagious.

Demam considers it contagious & recommends practitioners to act accordingly.

Dr. S. is in favour of its being contagious and does not think its occasional non-contagiousness interferes with this conclusion; because the same exemption is seen in acknowledged contagious diseases, as common typhus - scarlet fever - hooping cough - small-pox - measles &c.

Dr. Ferguson does not regard this malady as intensely contagious except where the materials transporting it have been much and long exposed to the atmosphere of disease.

From some well-marked cases Dr. Churchill would not deny the disease is sometimes propagated by contagion. The cases mentioned by Dr. Lee tend to confirm the contagiousness of pleuritis fever.

Dr. Simpson thinks it is clearly proved.
to be contagious but requiring that a part of the morbid matter be inoculated. From smallpox fever following in the track of one practitioner and in the case of the Vienna Hospital where part were delivered by males and the remainder by females, those delivered by the former dying in hundreds while those delivered by the midwives were comparatively free from the disease; the success owing to the midwives washing their hands before attending a new patient.

"Pathological Nature"

Various opinions have been held by different observers in regard to the pathological nature of this disease.

It has been regarded as:

Inflammation of the arteries by

A. Hippocrates

A. Galen

A. Pedanios

Paulus Avicenna

Raymundus

J. Gelatos

Senest
Riviers
Tysor
Brother
Mauriceau
La Motte
Sydenham
Brochane

Van Sweeten
Hoffman
Fillers
Orteau
Juddie
Astree
Dennier

Inflammation of the intestines: postmortem by
Hulme
Leake
La Roche

Peritonitis by
Waller
Bromley
Forster
Coke kokemak
Becket
Price
Gardiner

Capron
Gordon
Hey
Wm. Armstrong
Clarke
Campbell
Collins
Peritonitis connected with encephalitis or of an encephalitis character; by Connean
Home
Lowder
Young
Abner
Gordon
Armstrong
Hey
Campbell.

Disease of a peculiar nature
Willis
Doubilet
Hamilton
Pujas
Leuenert

Disease of a putrid character
Pen
Liset
Le Roi
White

Disease of a complicated nature
Petit
Selle
Kirkland
Walsh
Jonon
Armellé
Lee
Hargusin

Disease with Biliary disorder
Knisch
Stall
Doubilet
The opinion once held by some pathologists that the disease was an idiothetic or putrid fever "qui general" has been abandoned on account of the local inflammatory lesions in the uterine, peritoneum, chest to being found very frequently after death. Also the idea that the disease was essentially a local inflammation and that the fever was merely an effect symptomatic or sympathetic of the local inflammation has been disproved from there being no uniformity between the supposed cause and the supposed effect. In some cases of true and fatal enteric fever after death no traces or evidences of the local inflammations have been discovered.

According to Prof. Simpson it is now nearly agreed upon that it is a morbid condition of the blood leading to the fever and local inflammations.

Pathological lesions found in 222 Cases of Enteric Fever.

Peritonitis 193
Morbid state of uterine appendages 194
Compound lesion of uterus & peritoneum 165
Peritonitis alone 28
Uterus alone 29
Simple metritis 79
Splenitis of uterus 49
Pus in uterine vessels 134
Acarities 62
Secondary chest affections 50
Abscesses in pancreas, liver, muscles 19
" joints 10
Pus is most frequently found in the sympathetic of the uterus.

" Treatment

We should endeavor to avert the disease by keeping the patient in a room well ventilated and free from any excitement. Some have proposed to give some medicine immediately after delivery (Eunice iron) as a prophylactic. But as yet no medicine with such power is known. The treatment to be followed depends very much upon the type of the epidemic and we must always adopt the remedies to the individual cases.
Obstetric section was formerly much practiced. Leake thought it the only remedy which can give the patient a chance of life. Campbell says "we should not hesitate to use the lancet at whatever time we are applied to when the pulse is from irregular." Dr. Ashwell recommends (when bleeding is necessary) that the patient should be placed upright and bled to prevent syncope.

The following practitioners recommend it in febrile fever:

Denman, Leake, Gordon, Armstrong, Hey, Campbell, Macintosh, Butter, Kirkland, Hall, Orgarow, Girdon, Douglas, Clarke, Joseph Clarke, Dugès, Junkell, Blandell, Conguest, Grose, Dweet, Rye, Lee & Co.

In 15 only out of 88 did Collins deem it advisable to bleed - seven of the 15 recovered. He concided the application of from 3 to 4 oz leeches followed by a warm bath as the most judicious means of removing blood. Ferguson recommends depletion in the peritoneal form, where poultices applied to the abdomen along with Donets powder has been tried without effect.
In the gastro-enteric form he uses blood-letting after free evacuation of the intestinal canal. In the nervous form, leeching is preferred to relieve local pain.

Soosak when blood-letting is required would bleed from a large orifice the patient sitting in the erect posture, but if the patient is weak and delicate leeches are applied for the relief of local pain — generally however they are used in the more advanced stage. Baline bleeds only where there is pain in the hypogastrium and then sparingly. Dr. Simpson says it is only useful where the inflammatory type is present, and in most cases that local depletion by application of 1 or 2 day leeches early is of great service in peritoneal tenderness.

Fomentations are of some service in relieving pain — Yene portets — Thongopo-nilne moistened; and Dr. Simpson recommends if the symptoms are urgent (after the bleeding) the use of counterirritants, as rubbing the abdomen with oil of turpentine or the application of a blister or even the leeches may again be applied. Mr. Hall, Ferguson, Loock
 Gore, Lee, Burn, Dennman Dulhoo and others are in favour of the topical application as "fomentations to cold". D'Abermore thought them useful in all cases of peritonitis, but Prof.-Simpson thinks it aggravates the symptoms. Engelan also applied cold poultices to the abdomen.

**Enemata** and **Purgatives** According to Lowsley the bowels are to be freely opened, sometimes a warm injection into the rectum. Churchill recommends an enema of castor oil and turpentine if the bowels are constipated. From purgatives creating tinnitus Dr. Ferguson usually mix an analogic with them - as pillo Dox or Hypodermis. Purgatives have been warmly recommended by some writers (Hulme, Denman, Gordon, Day, Armstrong, Hall &c.) and as strongly repugnated by others (Baglivi, John Clarke Ceddshield, Thos Campbell &c.) But Prof. Simpson thinks we should never excite peristaltic action - avoid purgatives - and gently open the bowels with an enema. (If it is necessary perpetual ghee where the...
abdomen is pained, pressed and pinching the skin over the abdomen and ili producing an equal amount of pain, smart aperients will do good.

Opium Dr. Stiles was the first to point out the value of this remedy when bleeding was immediate.

Churchill has given it in doses of 32 grains with great benefit.

Burns & Locke gave opium immediately after purgatives.

Armstrong prefers bleeding with opium.

Douglas gives in combined with Colomel in his second form.

Collins often uses it with Colomel & physic.

It was one of the principal remedies relied upon by Dr. J. Watson.

Leevitt gives it early in the disease with Colomel & James Powder and thinks it helps to arrest it.

Lee gives it with other medicines.

Hegaton has given it combined with an aperient with great success.

According to Dr. Simpson "this is our sheet anchor, the safest and best remedy.
if it does not produce nausea and vomiting,
It would seem that the disease action
will wear itself out - if the patient survives
long enough; more by the opium we can
keep her quieting we will favour the
occurrence of this happy result. If the
inflammatory action is great and pain in
the abdomen severe we may combine it
with calomel. But we must be cautious
in giving calomel as it sometimes causes
fatal diarrhoea when the patient seems
otherwise to be getting well. If much fever
spurts may be combined with opium or
Furtuninae.

In one epidemic it was
given (in 3 doses) was to act on the
kidneys perhaps causing elimination of the
poison in that way. In general it is apt
to nauseate and produce vomiting thus
deranging the stomach which is with difficulty
put right again. Simpson.
Dr. Clarke and others tried it but without
success.
Dr. Breman praised it as almost a Specific.
Dr. Douglas, J. A. Johnston, Dewees, Payne,
Kinnear, Blandell, Walter, Keayston and Loest found it more or less useless. Dr. Douglass thinks its internal use should not be repeated more than twice in any case.

It is useful in the form of an enema and a counter irritant. Large doses of opium are given to produce vomiting.

Stimulants (wine, Brandy) and tonics are given in the last stage.

Some recommend washing out the uterus, but from this practice there is danger of opening the mouths of the uterine placental veins by distending the uterus and thereby enlarging the venous orifices and allowing of the passage of the morbid matters more readily into them.

In the use of Emetics, Purgatives, Sudorifics and Diuretics we must be guided by the indications of nature.

Emetics in the clinical form (Sennella Clarica) in one epidemic nearly all recovered by their use.
The treatment of the secondary deposits the same as in Surgical Cases.

Edinburgh
March 31st 1853
Not long discipled or expected

P. M. Jewish labour not a cause

Porphyraxis of Prevention

Dunne V C