On Enterico-Mesentric in Fever.

The great mortality of this disease, and its comparatively rarity, together with the obscurity in which its causes and the mode of its propagation are involved, render it a more than ordinarily interesting one, especially as there has lately been a considerably more than average number of cases in Edinburgh.

Various other names have been given to this affection, but they all seem more or less objectionable; thus its own most common appellation, Sothim Enteroitis, is incorrect in more ways than one; for in the first place the word is a compound of Greek and French, and such amalgamations of two different languages in one word, should always be avoided if possible; secondly, the fever may prove fatal without any appearance of it having; and thirdly, the Dioderotic, viz. bowel pimplens are parasitic at all as their name would indicate, but enlarged and sometimes ulcerated glandular polypiare. "Entero Typhus" (affection Typhoidi) are names also often applied to this fever, but they are both very vague names, and much inferior to the term Enterico-Mesentric, which describes in one word the seat of the principal (and the only pathological) lesions.
Lesions found in fatal cases of the disease. The following is the arrangement which I propose to adopt in considering this subject—

I. I shall give a short account of the disease as it appeared in Paris at the commencement of the present century, and was most accurately described by Gressems A. Petet and C. R. A. Serres, Physicians to the Hotel-Dieu, in 1819, and subsequent French epidemics.

II. An account of its occurrence in different parts of this country (especially in this city) and the differences observed at different times and places in the nature and symptoms of the disease;

III. Its identity or non-identity with other forms of fever.

IV. Its contagiousness, non-contagiousness, or insensate origin.

V. A brief outline of the various plans of treatment pursued.

First. The French fever. Previous to describing the symptoms and progress of the disease it may be well to mention the pathological lesions characterising it. It seems to have proved fatal in three stages of its progress: in the first, there was observed in the lower part of the ileum a greater or less number of round or elliptical purplish red patches opposite the attachment of the mesentery.
which were frequently seen throughout the greater part of the large intestines, as well as in the lower part of the ileum.
presenting, corresponding in situation to the agminate glands of Peyer; along with this was found an enlarged and softened state of many of the Prescientic glands: in those cases which proved fatal during the second stage were found a number of little projections, of the size of a small pea, in addition to the appearances just mentioned; and in the third and last stage, the patches characterizing the first stage had become ulcerated, as well as many of the little projections; here the Prescientic glands were much enlarged, black externally, and contained in their interior a mellicious or semi-foetid-looking fluid. These appearances were always confined to the lower portion of the ileum, generally extending from eighteen to forty inches upwards from the Sigmo-Cecal Valve. The red patches ulcers were generally about an inch in diameter. The ulcerations were at first, like the patches in which they originated, elevated, but in the progress of the disease became more and more excavated: They only affected the mucous membrane without extending to the muscular and peritoneal coats of the intestine, the best evidence of the truth of which statement is to be found in the fact that in no one of the forty-four cases recorded by Petit was there found an instance of death occurring from ulceration.
ulcerative perforation of the intestine. It is also very singular that in only one of all these cases was there any real enteric inflammation; in this case the inflammation was confined to the Jejunum, its upper part also involving to some extent the Duodenum and Stomach, but leaving intact the original seat of disease, the lower portion of the Jejunum. In one other instance there was a fistula.

Symptoms. The disease was generally ushered in by chills, this occurred in the great majority, but by no means in all the cases. Frequently the diarrhoea preceded the disease by many days or even weeks, the diarrhoea however in such cases being formerly not the symptom, but the predisposing cause of the Fever, just as a habitually loose state of the bowels or an active purgative acts as a powerful predisposing cause of Asiatic Cholera. In many cases however the diarrhoea may be said truly to have commenced with (and before) the disease, for it came on simultaneously with the other symptoms of the fever, which were generally severe headache, sometimes (but not in the majority of cases) great muscular debility and pains in the back and limbs. The pulse was weak, seldom very rapid at first, but more at night than during the day. The tongue was generally...
The mouth became dry and parched. The tongue dry, brown or black. Vomitus collected on the teeth.
generally moist & tolerably clean. There was unusually dull deep-seated pain in the right iliac region from the very commencement of the disease, often however not felt or at least expressed by the patient unless continued pressure was made over the affected joint. There was almost never any alteration of intellect in the earlier stages of the disorder. There sometimes, but in a great minority of cases, valued in the disease. There was generally also from the invasion of the disease, a sympathetic state of the abdomen. The pulse was almost always in smaller quantity than natural. The patient presented a peculiarly anxious stupid look, and though the questions put were answered quite coherently, there seemed to be great slowness of apprehension. As the fever advanced the strength became greatly prostrated. The pulse was very rapid—often continuing for a considerable time at from 120 to 120—and extremely weak. The respirations also became very rapid and short. There was great lividity of the skin, especially about the lips and base of the nose. The diarrhoea generally continued, and the defecations were very foetid, sometimes yellow (Bilii-mucacea) but not always so. Sepor, low delirium and often coma, terminating the scene in death.
The later stages the tendency to sloughing of the integuments over the stomach and other parts exposed to pressure was very great—much more so than in other diseases accompanied by equal general inflammation of equal duration. The patient usually lay upon his back—face with the knees drawn up, in the position as characteristic of any abdominal affection accompanied by pain increased upon pressure. Such then are the symptoms and the progress of the disease when leading towards a fatal termination.

In those comparatively few cases in which recovery took place, the favorable change was not indicated by any distinct crisis: for some days previous the urine began to increase in quantity, occasionally depositing a pellicular sediment of a greyish colour; the skin which had previously been hot and dry, became gradually moist, and was sometimes indeed covered with an abundant and warm perspiration—the more profuse the perspiration, the more rapid was the convalescence—; the countenance began at last to lose its heavy, stupid expression, became more lively, intelligent looking—the eye which had been dull, heavy (often with an injected sclerotic) became bright. It began to observe what was going on around— the delirium, if it had previously been constant, only occurred at night, and
at length disappeared altogether, carrying along with it the last traces of the fever. At this period the appetite, as in the case in recovery from all troubles, becomes very great, and if improvidently gratified, may lead to the most disastrous consequences. Even with all these favourable symptoms the patient oftentimes sinks from exposure to cold and damp, or from ulcerations produced by pressure, or by the blisters employed in the treatment of the disease which are always very obstinate and slow to heal.

To determine the average mortality of the disease generally and of the three different kinds in particular, as well as the average day of death and of complete convalescence, I have selected from all the best marked and least complicated of the cases recorded by Petit:

1. Of these 16 cases 12 died and 4 recovered;
   1. Average mortality 3 in 4
2. Average day of death in the remaining 12 cases was 18 ½,
   the most distant day being the 35th and the shortest the 7th
3. Average day of complete convalescence in the 4 cases which recovered was 45 ½. The most distant day being the 69th
   and the shortest the 25th

From M. Petit continued to arrive at any certain diagnoses to the class in which it places his cases of recovery, I must say
Day I am puzzled to conceive. However, granting his diagnosis to be correct, I shall proceed further to analyse the same sixteen cases;

**Fiebre Enter.-Mesentérique Simple**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Died</th>
<th>Recovered</th>
<th>Mortality</th>
<th>Day of Death</th>
<th>Complete Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4</td>
<td>2</td>
<td>2/3</td>
<td>13 2/3</td>
<td>98 2/3</td>
</tr>
</tbody>
</table>

Frost distal day of death the 21st. Shortest, the 7th.

... Complete 5/4 ... 25

**Fiebre Enter.-Mesentérique avec Alucation**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Died</th>
<th>Recovered</th>
<th>Mortality</th>
<th>Day of Death</th>
<th>Complete Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>1</td>
<td>6/7</td>
<td>24 2/3</td>
<td>69</td>
</tr>
</tbody>
</table>

Frost distal day of death 35th. Shortest, 9th.

**Fiebre Enter.-Mesentérique Pancreas**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Died</th>
<th>Recovered</th>
<th>Mortality</th>
<th>Day of Death</th>
<th>Complete Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td>16 1/2</td>
<td>3 1/2</td>
<td>34</td>
</tr>
</tbody>
</table>

One case died on the 16 1/2 day, the other on the 17th.

The gradual progression of the average day of death from the 13th in the simple form of the fever to the 16th in therecent form, to the 24th in the elevated form, is just what we should expect, supposing the assumption previously made, that the Pottos only appear after thepatchy state has existed for some time, that the elevated were merely an advanced state of the preceding elevated patches (and when they occur along with the Pottos,
they occur subsequently in their appearance). Supposing I say all this to be true, it is a self-evident fact that cases of the "Fiebre simple" must, when they prove fatal, do so at an earlier period than cases of the "Fiebre avee hémorrages" and that when death occurs in cases of the latter, it must do so at an earlier date than in cases of the "Fiebre avee hémorrages."

The description of the post-mortem appearances found in those of the above cases, which terminated fatally, is so constant and characteristic of the disease, that I shall give one from each of the three stages in the words of Petit. The first case is one of the "Fiebre simple": the patient was seized with severe headache, pain in the abdomen and diarrhoea on the 29th of June. These symptoms, accompanied by bilious vomiting, continued till the 6th of July, when great drowsiness supervened, unaccompanied by any alteration of intellect. His extremities became cold, he passed feces and urine involuntarily and died the same day.

Mectis Cadaveris. The abdomen was distended by gas, which escaped when it was opened; the stomach was healthy, both in its outer and inner surfaces, and the small intestines presented an appearance worthy of remark, until the lower two thirds of the ileum was reached.
At this point were observed on the outer surface of the gut patches of a violet-red colour, an inch in length by nine lines in breadth, occupying exclusively the convexity of the intestine. On opening the intestine these patches, formed by the elevation of the mucous membrane, projected a line into the cavity of the intestine; their edges were raised perpendicularly; their surface was dotted with nodules which were easily scraped off with the scalpel or the nail; the serous folds which were completely effaced over the patches, were found close up to the edges of the affected portions, presented the same appearance there as in the healthy part of the intestine. The patches were greyish like the rest of the intestine; their number and size increased in proportion as the cæcum was approached, sometimes their bases were inﬂamed, and turned livid, but usually pale. The mucous membrane was alone altered: evacuation for several days rendered its separation from the mucous tissue easy.

The large intestines were distended, contained little fecal matter, presented no morbid alteration.

The mesenteryic glands were enlarged, softened and reddened; their interior presented the same colour, which gave to them an appearance like that of the kidney.
The liver was healthy, the gall bladder was distended filled with light colored bile. The heart was a little smaller than usual; the pancreas presented no particular appearances.

Head. The brain was injected, the blood vessels of the brain were a little dilated, but its substance was uninjured; the ventricles only contained a small amount of serous fluid.

Chest. The heart was healthy, the lungs a little gorged, and contained in their interior some whitish tubercles.

The patient was 16, and had been in pain for 9 months.

The first case of ileocecal. The patient was seized with large short occurences on the 26th July, and died on the 24th of August. The symptoms and progress of this case did not differ from the last except that the abdominal pain was more severe.

On opening the abdomen the following were the appearances observed. The stomach and small intestines presented an appearance worthy of remark till the upper third of the ileum was passed; at this point the patches began to appear, their extent and thickness augmenting as the ileum was approached; at the upper part the ileum patches were slightly elevated, further down the ulcers were about an inch long by 8 or 9 lines in breadth;
When looked at through the intestine from the outside, they seemed much greater (as was generally remarked in other cases); the edges of these ulcers were elevated, folded upon themselves, and detached from the subjacent peritoneum, forming thus a Cal-de-Sac all round the circumference of the ulceration. Their base was greyish, and sometimes slightly red; the muscular fibres were rendered distinctly visible by the ulceration.

The Pancreatic glands had all a dark blue aspect, those which corresponded to the lower part of the colon being almost black; their interior was softened, brown—sometimes dark—sometimes light—brown; in some cases it was greyish, like tobacco matter.

The Contents of the Duodenum seemed quite healthy.

The last case to which I shall allude is one in which the inflamed patches had not gone on to ulceration, but, in which the particular or buttontike projections of poison had appeared in considerable number. The disease, as was also expected from the state of advancement of the larger patches at the time of death, had in this case run a very rapid course.
course, the patient dying on the 15th day of his illness.
Examination of abdomen. The stomach was slightly
inflated over an extent corresponding to the pancreas.
The intestines (as usual) presented no abnormal
appearance till the upper third of the ileum was
passed. These began to be observed the reddish patches
of the "Fiebre Simple." These patches were at consid-
erable distances from each other, but they became
more abundant as the Cecum was approached. On
opening the intestine were found, corresponding to the
appearance presented outside, greyish patches of a
Corresponding extent, increasing in size and thickness
as the Cecum was reached. The Valvulae Convergentes
which should have passed over these patches were
destroyed; the mucous membrane alone was affected
- the convex portion of the intestine exclusively was
diseased. Around these patches and
over the whole circumference of the intestine, were
found reddish portions of the size of a large pin-head
+ exceedingly numerous. These projections rendered
the surface of the gut very rough and affected the mucous
membrane alone. The large intestines were swollen
+ reddened on their outer surface, but their interior
was unaltered. The Incretive glands were very
Numerous.
Numerous, enlarged, hard and tender. Their structure looked like kidney, presented to the aspect, the same amount of resistance, as one of these organs. With the exception of the lungs being rather gorged with blood, the thoracic and cranial Parties were perfectly healthy. I have been thus lengthy in my remarks upon extracts from the work of Petit, because, much as his work has been abused as unscientific and incomplete, it seems to me to contain at once the most intelligible, the most concise, and, I imagine, the most correct account of the symptoms and pathological lesions occurring in the disease. No eruption is anywhere mentioned by Petit, and I do not think that had any such existed, it would have passed unnoticed by observers apparently so accurate as those seen by Petit and Lewis. As there are chiefly indubitable to our French neighbours for accurate descriptions of this affection, I shall, before proceeding further, make some remarks upon the appearance described by one or two subsequent French writers, as occurring in subsequent epidemics of fever in Paris, chiefly with the view of observing the differences between the symptoms of
lesions found in the same fever.

Epidemic of 1822, described by C. André, and occurred in the Clinical wards of M. Lemmer in the Hôpital de La Charité. The general features of this epidemic differed in two very important points from the preceding one: first, in the fact that a very great number of the cases mentioned did not commence with Driehoos, but it always made its appearance in the progress of the disease; secondly, in the appearance in a vast majority of the cases, of a well-defined eruption at one period or another of the disease, the time of its manifestation being very variable. It occurred with exceeding rarity in the commencement of the fever, it was most frequent between about the middle day of the fever and the commencement of convalescence; sometimes however it was not observed until the patient was fairly convalescent. The most constant form of the eruption was Petechial; in the milder forms of the malady the Petechiae were rose coloured, in the more severe, darkly violet and in the worst cases almost black. They varied in size from a pin-point to a small pea and were slightly elevated above the surface of the skin, as was observable by the sense of touch, but not by that of sight. They generally
Lasted for five or six days and then disappeared. Anaemia were not infrequent. This epidemic was also much less fatal than that of 1873, the abdominal symptoms were by no means so universally well marked nor, except in the fatal cases, so severe. Neither was the mortality so great, being only about 1 in 8.

The affection of the mesenteric glands were neither so frequent nor so extensive as in the previous epidemic.

Indeed many of the cases present exactly the characteristics of the mild form of Common fever which was so prevalent at the commencement of this winter. As in the former case, the fever attacked the young (but not children) much more frequently than those at an advanced period of life, it was peculiarly liable to attack those recently arrived in Paris. Ulceration of the stomach was by no means a rare feature of this fever—indeed one death occurred from ulcerative perforation of the stomach. Annual given a table of the ages of his patients from which it would seem that persons from the age of 18 or 20 to 25 are most obnoxious to this disease. His youngest patient was 15 years old, this oldest 73. In the constant presence and
in the nature of the intestinal lesions found in the fatal cases as well as in the rest of its important features it did not differ from the Fever of Petit. As much for the Epidemic described by Andral. After this it would seem that Epidemic fever became much less frequent, for in 1826 Boullard, in his treatise on FEVERS states that he had never an opportunity of observing Typhus Fever himself; he adopts the description of Heideland and Pinel, vas Pinel seems a most excellent description of the symptoms and pathology of Enteric Typhus, I shall give a brief outline of the disease as described by them.

1. Head symptoms. Headache, vertigo, sleep, but wont approach necrosis, great indifference to pain; in the more severe cases unintelligible muttering, troubled sleep, very hasty dreams; in many cases great excitation of the senses of sight, sense and smell sometimes, but rarely, if ever, also.

II. Affections of the circulation, temperature, and secretion. In the earlier stages of the disease the pulse is full, rapid, in the later stages very rapid most irregular. Skin dry and very hot. In the fourth, fifth or sixth day there appears on the surface numerous petechial (sometimes purulent) which ultimately disappear at a variable period by desquamation.
of the cuticle. Night Ecchymoses & Purgations are not uncommon. Epistaxis is frequent.

"Affections of digestive system". The tongue is at first red and very rough, but as the disease progresses it becomes in severe cases, dry, black and hard. does not possess that loaded appearance so well marked in our common Epidemic fevers. At the commencement of the disease there is usually great nausea (often vomitif); complete anorexia & frequently congestion of the mucous membrane of the Pharynx: as the disease advances there is great flatulent distention of the abdomen, pain in the lower part of it especially in the right lobe region, and at a still later period diarrhoea manifests itself, the alvine evacuations being sometimes yellow, sometimes green & sometimes dark-coloured occasionally containing a greater or less quantity of blood & depravation looking mucus. They are always very copious. Urine usually clear, but sometimes torpid.

Respiratory lesions are rare.

Men the disease terminates favorably, terminal Eversions occur frequently to take place, such as Epistaxis, Diaphoreis (a peculiar odour - Hildebrand's) Dehydration. Diarrhoea. Convalescence always very tedious.
Men the disease terminates fatally, the following are the phenomena observed, a dusky black tongue, great poverty of the breath, of the blood, of the urine, and indeed of the whole body; lividity of the skin, increase of the extent of the pectinate (which always existed until death, in the fatal cases), haemorrhages, gangrenous ulcers and ulcerations of those parts which support the weight of the body; gangrene of the raw surfaces caused by pus, a m-legged, universal trembling, convulsions, delirium, bitterness, thirst, indeed often a state resembling the last stage of hydrophobia. These dreadful symptoms are followed by a state of coma, with total loss of the powers of motion, sensation, and intelligence. A cold sweat perspiration covers the body, at last the sufferer succumbs to the universal malady.

The post-mortem appearances described by this author differ considerably from those Goute described by Deant as occurring in the then prevalent Parisian fever. The brain was frequently found to be the seat of effusion phlebitics, more common in the upper part of the intestine stomach. The by
far most abundant in the lower part of
the liver. The liver was often found
softened and the spleen frequently enlarged.
Such are the most important features of the disease
described by Monllor as "Fievez Epidémiique".
The elaborate work of Dr. Louis on Fevers was
published in the year 1829. Upon the descriptions
of this author, as I have already entered so fully into the
description of the Parisian fever, I shall make but
a very few remarks. Indeed it would be quite impos-
sible for me to condense into any thing like a reasonable
space the multitude of facts given by that
author. Besides I must say that, in common with
the great majority of his contemporaries, I very often
make much ado about nothing; as for instance
separating one case from all the others because
the patient happened to have an attack of
epistaxis or to have a tumefaction in his large intestine.

The following is a general outline of the
pathological lesions, as observed by him
in the stomach. Usually tolerably healthy. Very rarely
exaggerated (only in cases not labor 50)
Mucous glands, in every instance affected in
the manner described by Petit.

Lymphatics
Lymphatic glands, rarely diseased, but sometimes found softened (especially the lumbar and deep vaginal one.)

Small Intestines. The Agminate glands of Peyronie were in every instance found affected, from simple congestion up to the separation of grey sloughs. The solitary glands were also always more or less diseased. In some instances, the small intestines were found greatly distended with gas, but in few.

The majority of cases this was confined to the great intestine. In about one third of the cases, the mucous membrane intervening between the diseased patches was unnaturally pale; in the other it was red and injected with congestion.

Large Intestines. Almost always distended with flatus: no state of static, usually abominable, especially in the Poccoristic and small abdomen corresponding to the solitary glands.

Liver. Pale and soft in about one half the cases. Bile very abundant, very yellow. The gallbladder in these cases is said by Dr. Louis to have contained "Veritable pus", but this I consider very apocryphal; probably Real cases should be arranged in the same category with its alleged cases.
cases of suppuration of the heart and blood.

Spleen always hypertrophied in those who died at an early period of the disease, usually in the others also.

Redness generally healthy in a few instances enlarged, softened or inflamed.

Sweat also enumerates a great number of unimportant non-diagnostic lesions which occurred in a few of his cases. Those I shall mention:

The only other points to which I shall allude in this epidemic are: Rigors, headache, pain in the back, pain, and the Emptions. I do this because I think that by carefully noting the presence or absence of sometimes the one and sometimes the other of these symptoms in different epidemics of a fever evidently essentially the same (as doubtless the various Parisian Epidemics were identical) tends in no small degree to support the identity of the Enteric form of Typhus with other forms of fever from which it has been so long considered quite distinct by many eminent authorities.

1. Rigors. Some say that the milder cases commenced with "Fievres", the more severe with "Fievres accompagnés de tremblement": the heat...
I take to correspond to a sensation which has no word to convey a similar meaning in English, but which is admirably expressed by the Scotch word "groze": the latter I imagine corresponds more exactly to the word "Rigor". Sometimes, it was usually the mild cases, the rigor was simple, sometimes it occurred frequently during the course of the fever, not infrequently causing it to assume almost a remittent character.

II. Eruption, existed in all the severe cases of the fever (except perhaps in B); indeed in all the cases which could be decidedly pronounced to be fever. The eruption consisted of rose-colored centripetal spots distributed more or less densely over the chest and abdomen, as well as the upper part of the arms and thighs. In the fatal cases the eruption was very beauty shovel. The manifestation of the eruption varied from the 6th to the 11th day: it lasted from 3 to 17 day. The medium period of its duration being 7 day. Eruptions were frequent.

Head Symptoms. Headache in almost every instance from the commencement, which however generally disappeared when delirium set in. That this was not imaginary was proved by its non-reappearance in the intervals.
intervals of the Delirium. Delirium, when it did exist did not usually appear till about the 10th day at
soonest. Deafness was an almost invariable symptom of the more advanced stages. I may have
now to make a few more remarks upon this Epidemic,
but these shall constitute the close to speak of the

I have inadvertently spent too much time and
paper in descanting the French Epidemics, that I
have neither leisure nor space to enter so fully upon
the first part of the second division of my subject.
To wit, the description of the various Epidemics in
which ulceration of the intestine has been found in
this country especially those. I shall
therefore hasten on to a description of the cases
which suggested this subject. None as a suitable
one for a Thesis. Previously giving as short an
account as I saw of the Epidemics in which disorder
or ulceration occurred in Edinburgh. It was
first noticed to occur in any considerable number of cases in 1827, but as this Epidemic
did not differ materially from the two which I
am about to notice, content myself with briefly
alluding to it. From this time intestinal
Alleviations in Typhus became very rare, until 1878, when they seem from an account published by Dr. W. Henderson and J. Reid Ruse again become very common, for out of 41 fatal cases, the abdominal organs in which were examined "the elliptical patches of opaque were apparent and distinctly defined in 24"; and in four of these cases the glandular tolerance were distinctly elevated visible in the postero part of the region. In all these glands the cases were blunt and speckled with dark dots over their surface. In 2 cases only were the patches observed to be distinctly elevated.

The Eruption was usually petechial (sometimes papular) was most constantly found on the hands and thighs. The eruption came out all at once. There were no successive stages of petechial, as has been elsewhere observed. It usually appeared about the 4th or 5th day lasted for about ten days, but both the period of its appearance and its duration varies very much. About the same period Typhus alleviations were common in different parts of the country. They grew most accurately described by Dr. Rudge, as they occurred at Ausmuthen in the County of Fife. Mr. G. had attended about 50 patients in the course of
five years. Of these only 16 had died; in 109 these 16 cases, the glands of Peyer, both in the ileum and
sulphur, were found ulcerated and enlarged, and
in no less than 4 had the ulcerations gone on to
perforation of the gut. The general symptoms
of the disease were as follows: It commenced
with pain in the back hollow, costal or axial
depression. The last however was not very great.
In mention is made of rigors, a former and premonitory
symptom of this fever. The pulse generally
continued from 90 to 110 or upwards: there was
great Teneuris Aureum, rarely delirium; a tendency
to looseness of the bowels, but seldom a watery
diuresis; teerness in the Epigastriæ, or Stomach,
symptoms of acute Bronchitis. Nearly all the fatal cases
occurred in young subjects between the age of 15 or 20.
Mr. Godwin observed the glands of Peyer to pass
through exactly the same stages, as described by
the French writers; 1. Slightly elevated; 2. A number of
bluish dots on their upper surface; 3. These dots coalesce
into a slough; 4. Slough assumes the form of a scale from
the top to the *9 *and on in thickness; 5. Scale begins to
separate *the...
The salivary glands of Peyer underwent similar changes, becoming first elevated then elongating at their apex. To return to Henderson's Cases: In only 9 of the 24 Cases before alluded to was there any abdominal pain observed during life; in all of them there was greater or less looseness of the bowels. In one other case there was so appreciable action of Peyer's glands, there was great tenderness in passive extreme diachisis during life.

From the above period, there was scarcely a case of ulceration of the intestines in fever until 1846, when a great many cases occurred; of the probable causes of this increase I shall speak presently. Unfortunately I cannot meet with any thing like accurate statistics of this fever (I believe which have ever been published) in the Hospital Fever ward books from which I expect to have accurate much information, as not by one forth coming, having been abstracted from there; and in the present state of Medical Knowledge has considerably drained his moral faculties, as far as regards the recognition of the distinction between "Hyperemia" and such being the case, I fear I shall give but a vague account of this epidemic, but I shall detail the phenomena which seem to one most important.
The eruption was very generally of a measly character, usually made its appearance between the 7th and 12th day; each spot did not last more than 3 days, but there is a succession of spots till the 21st or even 30th day. They were found to recur chiefly on the trunk, were generally very few in number; indeed the existence of any exception is the exception that makes the rule. The post mortem appearances are thus recorded by Dr. J. H. Bennett in a paper read by him before the Medical-Chirurgical Society on the 4th July 1847. Previous to the commencement of this epidemic in 1846, ulceration in fever had been so rare, that Dr. B. had only met with it in 3 cases out of 500 post mortem examinations of fever patients, which he had made in his capacity of Pathologist to the Royal Infirmary.

Between the first of November 1846 and the 30th June 1847 there were treated in the Hospital 2071 fever cases, of which 278 died, or about rather less than one in every seven and a half. Post mortem examinations were made in 691 of these cases; of these 63 the intestines were ulcerated in 19. The appearances corresponding almost exactly to W. Godwin's description as above quoted. In all these cases the mesenteric glands were enlarged.
enlarged, soft & friable; on section they presented a dirty yellowish color & sometimes contained matter of a mucous or creamy consistence; in a good many cases the ulceration was not confined to the duodenum, but the large intestine was studded with nodular ulcers. In Dr. Bennett's cases, the spleen was found much enlarged and softened & usually contained a number of those peculiar bodies known as Typhus Cells, which as far as we know are found in the body in no circumstances than as produced by the person of Typhus fever.

From the time these cases were recorded until now, cases of ulceration have ever arisen among the people generally. However, however the patients have recently come from some part of the country where that kind of fever is prevalent, I shall now proceed to narrate remarks upon the cases to which I before alluded, as being most characteristic instances of the disease, among which there could have been no contagion of the same specific nature as which however seemed when once the fever had appeared to be propagated by contagion. The cases I allude to seemed in the end of last year or beginning of this present year...
are as follows. Previous however to relating these cases, I will give a brief account of the locality in which they occurred. The house occupied by the family of Horison

the subject of this dreadful disease is a small flat in Fountain Bridge nr 168. The roof of the house is about 2 feet below the level of the street; the floor is earthy and about 3 feet below the level of the ground at the back of the house. The house is very damp and the adair proceeding from the back court which is used for not very cleanly purposes is most disgusting. Besides, this the house is in the immediate vicinity of the canal, the whole neighborhood is excessively damp unhealthy. Lastly both the house back court seem constructed expressly with the view of excluding as little air as possible. The first case which occurred in the family I had not an opportunity of seeing, but as far as I could learn from the family the gentleman who attended it, the following are the facts of the case.

Case I. Elizabeth Horison, a native of . was seized with severe headache, occasional chilliness, but no distinct rigor. The pain in the back nor limbs, on or about the 7th of December, with a tongue at first red through, but afterwards white covered. The fever seemed to run a
pretty mild course for the first three weeks: at the
end of this period however the child began to complain
of abdominal tenderness, symptoms in a considerable
extent was observed. Tombola supervened and on the
7th Dec. she passed a large quantity of blood by stool:
On the evening of the same day, she was seized with
intense tendam pain all over the abdomen. The pain
continued until morning, when it entirely left her,
and death put an end to her sufferings on the forenoon
of the same day. No Eruption was observed, tho' I
was told it was carefully looked for.

Case II. Elizabeth Thomson, the mother of the above,
who had a general feeling of lassitude, with slight
chilliness, was unable to rise next day; complained
of nothing at this time except sleeplessness, complete
loss of appetite; general lassitude; in a day or two
she was attacked with severe headache. On the 2d or
3d day these symptoms entirely disappeared, she
was able to be up. Had just commenced her usual
household occupations, when she again relapsed. At
this time I was first sent for to see her as a Dispensary
patient. She complained of the above mentioned symptoms.
Her pulse was a little above 100, her tongue very red, her
membrane costive, but easily opened by the gentlest
Forgotten, she which mother were used. I did not see her personally again after this for a week being absent from town. On my return I found her headache much relieved, but she complained of some abdominal pain increased in pressure especially in the right side region, together with great irritability and a considerable degree of deafness. She was excessively weak, pulse 120 every week; protracted our constipation. From this time she gradually improved under wine and sinna, her pulse however still ranging from 110 to 120. In the 11th January, she had a return of the abdominal tenderness to a greater extent than before, and most distinctly referable solely to the right side region. It increased to a marked extent on pressure (this was preceded for a day or two by sn救护车). On the evening of the same day, she had a large amount of hemorrhage from the intestines, the blood being dark and clotted; after this she gradually sunk and died on the 13th January—exactly 30 days after the commencement of the disease. When the bowel complaint existed, the evacuations were not green, sappy, but dark, fetid, and slight consistence. An eruption was most carefully looked for almost daily in this case, but no trace of one could at any time be found in any part of the body.
Case III. Marianne Horsen. Act. II. On July 10th, 8 days before her mother's death, she felt chilly all day and was seized with violent headache the evening next. Having little doubt that the depression and closeness of the lungs had in a great measure been the cause of the great severity of the symptoms in the case of her mother, I hastened to see her and was soon as I saw her 8 days after this (her friends having been unwilling to have her removed) her symptoms were much increased in intensity. As she continued without improvement she was last admitted into the Hospital on the 12th January, when I had ample opportunity of carefully observing her case, being Clinical Clerk 24. H. She was in which she was admitted: Quinine was administered to her with a view to check the fever on the 17th. On the 18th (eight day of fever) she had profuse defleming during the night; her pulse was 90, full yet soft, skin moist and cold. Tongue clean thirst headache gone. First day however she had a reoccurrence of febrile symptoms, her burning skin great thirst headache. Pulse however remained about 90. On the 24th, Fever blanching first showed itself (the bowels having previously so constipated as to require repeated enemata) which lasted about 36 times stools dark tarry. On the 27th (17th day of fever) she had considerable tenderness all over the abdomen.
Abdomen, especially in the Right Lower Region, as usual
increased in size; this was relieved by leeches. Next
day she had a return of diarrhoea, her tongue became dry
and black; tonsil collected on her teeth; general typhoid
symptoms came on. Feb. 1 (22nd day) Slight cold
and voting. Seem to be totally insensible to surrounding
objects. Has had no diarrhoea since yesterday forever.
On Feb. 2nd, she seemed much better and seemed to understand
quite well what was said to her. After this however,
typhoid symptoms reappeared. She gradually sense
return on Feb. 4th. She had no return of the diarrhoea,
but her stools were very dark of tincture.

On Dissection the following appearances were found.

Stomach. 10 or 12 small suppurative ulcers were observed.
Small Intestines. quite healthy until about 12 feet from
the Cecum, where an enlarged and elevated uterine gland,
with an excavated apex was found. Very like a small pig
Anus. A little below this an elevated Reviewian plexus was
formed, studded over with yellow spots; between this and
the Cecum were found an immense number of haemorrhages in
all stages from simple enlargement to advanced ulcerating,
those nearest the Cecum being most advanced. Mixed with
these a great number of enlarged and elevated solitary glands.
No bowel movements were almost destroyed by leeching.
The large intestine was found studded with enlarged and ulcerated solitary glands. The mesenteric glands were found considerably but not very extensively enlarged or inflamed. The other organs were tolerably healthy.

Case IV. Andrew Thomson, Art. 9. (I am not quite sure that I am giving the accurate dates in this case, but the facts I can read from, so I saw him more than once every day during the time he was in the hospital). His disease with symptoms quite similar to those observed at the commencement of the previous season. Feb. 1st of February, he was removed to hospital for ten days after the attack. He was then suffering under all the symptoms of fever continued feverish hot and dry, mouth parched, tongue fair, pulse 120. Delirium supervened occurring however almost solely at night, but on the 2nd of February he had pulse therapeutics, and after this underwent the usual Convalescence from Fever. As in the former Cases, so in this, there was an eruption. He was taught at one time to experience pain in some in the right side region, but I am certain that he never exhibited any symptoms of it, unless when the pressure was so severe that it ought in itself to be considered sufficient to cause an expression of pain.
by a child of this age. He had never any diarrhoea. One it is that he now then complained of abdominal pain, but he denied on these occasions rather relieved than gained by presence.

III. "Identity or Non-identity of this disease with Common Typhus." This is a question which has been much vehemently contested. It has been urged that "It is impossible for a fever innocually characterized by ulceration of the glands of Peyer to be identical with one which does not present any such anatomical lesion." But in answer to this, I am inclined to believe that such ulcerations are not an essential part of the disease, but only accidentally developed; just as, here we have frequent epidemics of fever almost invariably characterized by some important lesion of the Respiratory System, as Bronchitis or Pneumonia, yet nobody will presume to assert that such Bronchitis or Pneumonia is an essential characteristic feature in the Classic Typhus fever. Again, supposing that the cause—whatever that be, what it is, I do not pretend to say—which causes produces a tendency to enteric ulceration be for a time removed (and we can scarcely suppose such a cause perpetually without inter-
The characteristic phenomenon of the Enteric-mesenteric fever may be maintained until the reoccurrence of such cases, by long habit, so to speak; just as we observe in living beings, as animals or plants, that a peculiarity at first distinctly referable to some peculiar circumstance, in which the plant or animal has been placed may be continued in the succeeding generations for a length of time independent of the continuance of the original cause. It is true that under a long deprivation of the "exciting cause" this peculiarity will be lost; but that is just what I want to prove with regard to this feature of fever, for I hold that if the predisposing cause of affection of Peyer's glands in French fevers were to be absent for a sufficient length of time, that fever would lose its individuality; become one with our fevers.

Again, the identity of the two different kinds of fever occurring here is supported by the fact that cases of Dithun have often occurred, in which Cutaneous was only traceable to a case of Common Typhus. In the sense of Dispensary Practice this Winter I have more than once met with two cases in the same family, one of which
The symptoms were decidedly those of typhus in one of the cases, & those of cholera in the other. In support of the identity of these two diseases I may state that several nominally positive distinctions between them have been found to exist only in the brains of their advocates. For instance the question of the
permanence or non-permanence of the eruption (when it exists) or presence has been considered a diagnostic respectively of enteric or common typhus, but this,
I am sure from what I have observed in several
cases of common typhus, is very rude of the truth:
whether it be true or no in cases of enteric the enteric
fever I cannot from personal observation give an
denial for no eruption existed in the human
cases, & in the other cases of abdominal fever I
have had an opportunity of seeing this winter I regret
that I did not carefully look for the character, or some
trace even the existence of an eruption. Such an omission
will appear pardonable when the nature of the ulcers
of the usual recipient of dyspepsia again is considered.
As decided relapsing nature of the first cases I
have given would seem to indicate a connection
between the relapsing & other types of fever: It
has been observed that relapsing fever does not protect from
Typhus arises from a second attack of a nature similar to its own: While typhus certainly has to a certain extent the power of protecting from another attack of itself. This observation if it be correct one—in certainly a blow to the idea of the identity of Relapsing with Common Entere Typhus. I would not attach nearly so much importance to the observation made proving or trying to prove. That at a time when both Common Relapsing fevers were prevalent here, the Cent again could always be distinctly traced to the same from with which the patient was affected; for statements of this nature should always be received with extreme caution, even when proceeding from the highest authorities, because it is impossible positively to affirm that the patient has not it may be unknown to himself being exposed to contamination of the fever different from that under which he labors as well as that of the same nature.

Besides all this we generally have an acute disease seizing upon the most vulnerable organs in the body; and from this mode of attack in France probably the intestines are in the least normal state of any organs. When the body is in a state of comparative health, while the weather along with the great and
and sudden atmospheric changes, the lines are
probably in a frame debilitated by fever. The most
vulnerable organs, as such are seized upon by
the various inflammatory maladies incident to
them. Finally, the last case I have given, if it was
really a case of fever, of which there is I think little
doubt, was certainly not a case of either. The
contagion could only have been derived from a case
indubitably of that character.

IV. Contagion. Supposing my view of the identity of
Common Enteric Typhus, there would be no difficulty
in pronouncing the latter to be contagious, for I
presume no one will deny the contagious nature of
it. But, granting for the sake of argument, then
the question of their identity is still an open one, I
think a reference to the leading circumstances of
the cases I have related, will at least indicate the
probability of its contagious nature. In the first case
no distinct exposure to contagion could be traced,
but on making enquiry I found that a short time
before the first patient was taken ill, he had been
exposed to Fever—one case apparently of an Enteric Character—
three flats above the Heurin's house at No. 169, Mountain
Bridge—so that although Ray said that there had been
no intercense between the families, &r the contagion might possibly have been derived from thence. But whether the first case arose spontaneously from the natural exhalations around the house, or whether these exhalations merely modified the character of the fever causing it, to assume an enteric type, it seems undoubted that the later cases were propagated by contagion (this in the 2nd & 3rd instances modified by the same cause). If this were the case, it cannot be doubted if we look at the gradual and slow succession of the cases, for surely, had they been caused by a micromanic origin, they would have broken out all at once or the one rapidly after the other. Moreover, all the members of the family who had the fever were occupants of the same sleeping apartment, many of the same bed, while the rest of the family, equally numerous, who were crowded into a second room much damper & closer than the other, all escaped the disease. I do not mean to say that the fever may sometimes possibly originate in a dependent of contagion, but once originated in any way whatever, it will be propagated by contagion. The supporters of the doctrine of the solely micromanic origin of the disease may as once be silenced by the
the notorious fact near the workmen (other foundries) at Great Junction who live continually in an atmosphere charged with the fumes of animal fatification, are peculiarly exempt from it.

V. Treatment. Of this I have little to say, but that we must be guided by the broad principles of natural medicine, especially applied to each case. Considering the state of prostration great tendency to formation of ulcers in dependent of specific exciting causes, the formation can blisters or general bleeding, practiced by your Continental friends, would seem to be eminently contra indicated. The employment of mild enemas when perspirations are necessary, the application of a few leeches when the abdominal pain is severe, the application ice to the head in severe headache, and the only use of tonics or wine will serve up nearly all that is necessary in the treatment of this disease.

In conclusion, I have but to say that the ulceration process should attack only the gland of Peyer, that the rest of the membrane membrane of the intestinal canal is a question which we can only hope to settle satisfactorily when we have discovered the use of the glands themselves.

George Douglas.

March 14th 1852.