"THE DIAGNOSIS OF ACUTE ABDOMINAL ILLNESS"

THESIS

for the Degree of M.D.

by

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THE DIAGNOSIS OF ACUTE ABDOMINAL ILLNESS.

In the many difficult positions, in which a medical practitioner may find his instant judgment called upon, surely none is of greater importance than the diagnosis of acute abdominal illness.

For while the diagnosis rests with the practitioner, the treatment frequently, if it is to be successful, demands immediate surgical interference. On the other hand, I have seen cases where a more correct diagnosis would have saved the patient's friends considerable alarm, and in some cases would have saved the patient the dangers and inconvenience of an abdominal operation.

My paper will be based upon my experience in the medical and surgical wards of a hospital and also upon the diagnosis of the doctors who sent the cases to the hospital. The cases that I shall deal with, will be mainly what were considered to be acute abdominal cases, during the three years that I have been a resident Medical Officer at the Royal Infirmary, Sheffield, since I graduated in July, 1905.

One of the great difficulties that the new graduate has to face in abdominal cases, after he has made his diagnosis, is to estimate whether the patient's condition/
condition is immediately dangerous, or whether we can go on watching the patient without doing any harm.

In one's student days, I am afraid we miss several of the acute cases, or else, as the decision for immediate action does not rest with us, we do not give these cases the attention they deserve.

As several of the cases that I shall base my paper on, were operated on by a surgeon, I shall endeavour to show how my mistakes arose, and how they should have been avoided. My cases will also show how much a practitioner might learn from attending operations on his acute abdominal cases. For it is only by comparing the symptoms and physical signs, with what is found to be present at operation, that we can improve our diagnoses.

I will now take various acute abdominal illnesses in order, and discuss their diagnosis.

**ACUTE INFLAMMATION OF THE VERMIFORM APPENDIX.**

Of the acute abdominal conditions requiring immediate diagnosis, undoubtedly the above is the most common, and therefore I will take it first.

I shall consider the onset, the pain, the vomiting, constipation, or diarrhoea, as ascertained by taking the history of the present illness.

The/
3.

The Onset.

It is quite remarkable how frequently an attack commences while the patient is in bed between 2 a.m. and the hour of rising in the morning. The pain having thus no relation to the taking of food. Why the pain should commence while the patient is in bed, I do not know, but I recently had a miner who worked during the night and his attack commenced during the day, while he was in bed. On the other hand, I have seen cases start while the patients have been lifting heavy weights in the iron works.

The Vomiting.

In some attacks there is only a feeling of nausea, but it is more common for the patient to vomit once or perhaps twice after the pain has commenced. The vomiting is not severe nor progressive, nor, as a rule, is the quantity great. The patient may vomit on days following the first day of the disease, but does not always do so.

Constipation and Diarrhoea.

Constipation is more frequently present. On the other hand, I have seen several cases where diarrhoea was present, and it is erroneous to suppose because a patient has got diarrhoea that the patient cannot have appendicitis.
appendicitis. A history of an attack somewhat similar to the present illness is not uncommon. But the present attack may be the first.

We next proceed to examine the patient. The pulse varies from 90-120 at the onset, but I shall endeavour to show later how the pulse can help us to determine the condition actually present. The temperature varies roughly between 100°-102°F. A higher temperature at the onset is not the rule. The respirations are not usually above 20-24 per min. The tongue is, as a rule, dirty and furred. The Gums should be examined, especially for the blue line of lead poisoning. Bad teeth should be noted. Then examine the abdomen.

I first always ask the patients to point to where the pain is, or was. In appendicitis a large proportion of the patients point to the right side of the abdomen, below the level of the umbilicus. On inspection.

In some cases one can seen a distinct bulging in the appendix region, though frequently we have no such swelling to aid our diagnosis.

While still watching the patient, I would lay stress on the importance of/
of asking him to take a "deep breath". In cases of acute appendicitis, the abdomen below the level of the umbilicus is held rigid and does not move with respiration.

Finally, we palpate. In some cases we can feel a definite lump which is tender on pressure. In the absence of a lump, the rigidity of the right rectus, below the level of the navel, together with pain on pressure is almost a sure indication of acute appendicitis.

Presuming now that we have to deal with a case of acute appendicitis; have we, so to speak, of looking through the abdominal wall and picturing to ourselves the exact state of the disease. I think there are many guides to help us.

I will now take certain varieties of appendicitis and discuss the points which help our diagnosis.

ACUTE APPENDICITIS WITH A LOCALISED ABSCESS.

When we can feel a lump there is frequently an abscess. The lump is larger than the amount of pus subsequently found would seem to warrant. The matting of the omentum and the adhesions are the cause of the lump. On the other hand, the lump may be due/
due to the "matting" alone, and there is no pus.

What other aids are there to the diagnosis of pus, when a lump is present? I consider in all cases of appendicitis, it is most important to remember how many days it is since the attack commenced. If it is the sixth or seventh day, and the pain is still present or increasing, pus will be found. The temperature varies from 99° - 101°F. with a localised abscess.

The pulse is usually between 70-90, but with a localised abscess it is quite remarkable how often the pulse is as low as 68.

Dulness on percussion is in favour of an abscess. I have never seen oedema of the abdominal wall over the lump, when pus has not been present.

**Gangrenous Appendix or Perforated Appendix.**

If on the second or third day of the illness, the patient is acutely ill with a pulse of 110-120, and a temperature 103-104°F., the abdominal muscles rigid and tenderness spread over a large area, we may suspect a gangrenous or perforated appendix. In some of these cases we must be on our guard as the patient says the pain is better, but the rapid pulse warns us, and the lessening of the pain merely means that the tension is/
is relieved by the bursting of the appendix.

**ACUTE APPENDICITIS WITH**
**PELVIC ABSCESS.**

Frequently with an acute appendicitis, we have a separate abscess in the pelvis. This secondary abscess may be true pus, but more frequently it is a collection of sero-pus.

To diagnose this condition, if it is large, we get impaired resonance as in figure.

But more often the collection is quite small, in which case I have found that tenderness on pressure about a point marked "x" which is inside the left anterior superior spine is frequently present. When such a collection is present, Rectal Examination gives pain and there is a feeling of fulness to the examining finger.

**APPENDICITIS WITH GENERAL PERITONITIS.**

In this condition there is general rigidity of the abdominal muscles, with perhaps general distension, the anxious face, the vomiting and the small, wiry, rapid/
rapid pulse of general peritonitis. To distinguish it from general peritonitis due to other lesions, we must be guided by the age of the patient, the history of the case, and also, unless we can find some other cause, we must remember how common acute appendicitis is.

**CATARRHAL APPENDICITIS.**

If a patient has tenderness over the appendix with pain and vomiting, the pulse rate increased and a raised temperature, he has probably an attack of catarrhal appendicitis. If these symptoms have subsided after 48 hours from the commencement of the pain, the attack is passing off, but if the symptoms are worse the attack is going on to one of the more serious varieties of appendicitis.

**LEUCOCYTOSIS.**

In my cases the leucocytosis was usually about 14,000-16,000. Although this is a help in the diagnosis, I consider the other points I have mentioned, more valuable, because I am speaking of the acute cases, and we cannot as a rule keep the patient under observation and take a series of blood counts.

Finally, to estimate the position of a patient suffering from acute appendicitis, we must remember whether/
whether it is the first or third or later day of the
disease, because the significance of a rapid pulse on
the 1st is quite different to a rapid pulse on the 3rd
day. If we make these allowances, then undoubtedly
the pulse is our guide to the patient's condition.

**DIFFERENTIAL DIAGNOSIS.**

In my differential diagnosis I will discuss my
own mistakes, and also those of the doctors who have
sent the cases to hospital. If after we have examined
the patient, the case does not seem definite, we must
see if we cannot revise our diagnosis.

**PNEUMONIA.**

I have seen two cases operated on whose appendices
were apparently healthy, but who were subsequently
found to have pneumonia on the right side at the base.
The mistake arose from the acute tenderness that was
present over the appendix. On the other hand, I can
remember four or five cases that were sent in to
hospital as acute appendicitis, but were found to have
pneumonia. In these last cases there was pain over
the appendix, but the rigidity was not great, and if
the hand was kept on the abdomen, there were moments
when the abdomen was quite soft. Also the respira-
tions were more rapid than in acute appendicitis and
the/
the temperature was higher than is usual in acute appendicitis. On examining the right base, dulness and crepitations were found. These cases ran a typical pneumonic course. In one case, at the onset, I could only find pneumonic signs at the apex of the axilla, but the patient after had pneumonia of the right lower lobe.

**LEAD COLIC.**

I have seen six or seven cases of lead colic, that were sent to us as acute appendicitis. Although here there may be pain over the appendix, the pain more often extends right across the abdomen and the rigidity of the muscles is not so great. Diachylon is being used in Sheffield as an abortion agent. These poor women are sent to us acutely ill with pain and frequent vomiting and constipation. The patient has a typical yellow face and sallow skin. Wrist drop has not, as a rule, commenced.

On turning down the lips the blue line of lead poisoning can be seen on the gums. Severe headache is common, and three cases had optic neuritis. The temperature is, as a rule, normal. In one case a man I diagnosed acute appendicitis after three days observation because his temperature was 101°F. and his pulse/
pulse over 100. He also had distinct tenderness over
the appendix with vomiting. I omitted to look for the
blue line, and found this well marked two days after
appendicectomy had been performed. We must remember
lead poisoning and look at the gums.

GALL STONES AND EMPYEMA OF GALL
BLADDER.

I have seen these cases confused with acute appen-
dicitis. Jaundice actually present, or a history of
an attack of jaundice, should help, but an absence of
jaundice does not exclude the Gall Bladder. My last
case of Empyema of the Gall Bladder, said she never
had been jaundiced. The tenderness is situated
higher than in acute appendicitis, and there may be a
lump which is situated just below the liver and moves
freely with respiration.

RENAI COLIC.

Just before Xmas, 1908, I had a man sent in as
Acute Appendicitis. The patient complained of pain
over the site of the appendix; but the muscles were
not sufficiently rigid, and the pain also shot down
the groin. The temperature was normal and the pulse
was only 80. There was also albumen in the urine.
This patient quite recovered after two attacks of
renal colic.

TUBERCULOUS/
TUBERCULOUS PERITONITIS.

I remember three cases of Tuberculous Peritonitis that were operated on as acute appendicitis. In two of these cases there was pain and vomiting and tenderness over the appendix. There was a general fulness of the abdomen, but the rigidity was not marked. I could not make out free fluid in the abdomen, although some was found at operation. In both cases, however, the pulse was only between 70 and 80. In the third case, a little girl aged 8, the abdomen was distended like a drum, vomiting was very frequent and her mother said she had only been ill a week. She was diagnosed General Peritonitis following appendicitis. She was, however, a case of Tuberculous Peritonitis and recovered after Laparotomy. It is not uncommon for patients with tuberculous peritonitis to have an attack of acute appendicitis on the top of the Tuberculous Peritonitis; so that in cases of Tuberculous Peritonitis with acute tenderness over the Appendix region, we must remember the danger of an appendix abscess with bacillus coli in the abscess.

PERFORATED GASTRIC AND DUODENAL ULCERS.

I am going to discuss these conditions later, but I mention here that I have seen cases sent in as acute Appendicitis, that were perforated Duodenal Ulcer and vice versa.

RUPTURED/
RUPTURED ECTOPIC GESTATION.

In every case of suspected appendicitis in the female, it is right to go into the menstrual history, and any disturbance of the normal course should arouse our suspicion as to the state of the pelvic organs.

ACUTE PYOSALPINX.

A history of gonorrhoea is in favour of pyosalpinx.

ACUTE GASTRITIS.

I had a man sent in as acute appendicitis, who had acute gastritis. The pain and vomiting were severe. The temperature was 100°F, but the tenderness was in the Epigastrium and the rigidity was not marked. The patient had also had a large quantity of beer.

TWISTED OVARIAN.

This is very hard to distinguish. Haemorrhagic discharge from vagina is in favour of a twisted ovarian.

PNEUMOCOCCAL PERITONITIS.

Two cases were operated on as acute appendicitis. There was a brownish fluid in the abdomen which contained pneumococci. There was apparently no disease of the appendices.

The above cases are my own personal experience. I have never seen, so far as I know, a gastric crisis in Locomotor Ataxia, nor in acute pancreatitis. These must be remembered as a possible source of error in diagnosis.
ACUTE INTESTINAL OBSTRUCTION.

While the treatment of Acute Intestinal Obstruction is so essentially surgical, there is much in the diagnosis that is of peculiar interest to the practitioner.

In acute intestinal obstruction the leading symptoms are Vomiting, Pain and absolute Constipation.

THE VOMITING is progressive, i.e. the stomach contents first, then frequently bile, and finally the vomit has a faecal odour. The vomiting goes on whether food in withheld or given.

THE PAIN is severe and sometimes stops for a short time, and then commences again. The patients can feel the intestines rolling about.

THE ABSOLUTE CONSTIPATION. The Constipation is absolute. No flatus is passed. The patients sometimes tell us, however, they have passed a little wind. We must also be on our guard against slight results from an enema, which have come from below the obstruction, and unless the general condition of the patient improves, we must not rest satisfied.

THE GENERAL APPEARANCE OF THE PATIENT.

These/
These patients have a peculiar, almost cyanosed look. The pulse is usually between 90 and 110, and the temperature about normal. Of course if we do not get these patients soon after the onset of acute obstruction, the pulse is rapid 120-130, the temperature raised to about 100°F and the eyes have the bright sunken appearance of general peritonitis. The tongue is dry and furred.

THE DIAGNOSIS OF THE CAUSE AND SITE OF THE OBSTRUCTION.

In all cases of acute intestinal obstruction, we must first of all exclude the external herniae, and then we must examine the rectum. I have had a case of carcinoma of the rectum, causing acute obstruction, in which the growth was not suspected until acute obstruction set in.

My experience has been that the commonest cause of all acute obstructions is a growth in the bowel (carcinoma). That is an acute obstruction supervening on a chronic. The patient has either not consulted a doctor at all, or else the growth has escaped detection. In these cases we must take into consideration the age and the history of the patient.

THE AGE. In these cases, the patients are usually between 45-55, although they occur in older patients, but/
but not so frequently.

THE HISTORY. We frequently obtain a history of some constipation. Adults whose bowels have moved quite regularly, become troubled with constipation, or else we find they have had an attack of constipation with pain, two or three months previously from which they have recovered and gone on in apparently good health. We sometimes get a history of colicky pains which are intermittent. Sometimes there is an attack of constipation alternating with diarrhoea. A history of passing blood in the motions is rare.

THE DIAGNOSIS OF THE SITE OF THE OBSTRUCTION.

This is difficult. The patient will sometimes point to a painful spot. This sometimes helps, especially in the diagnosis of obstruction at the ileocaecal valve or the sigmoid, but the obstruction is not always situated behind where the pain is.

THE GENERAL APPEARANCE OF THE ABDOMINAL DISTENSION.

This is important. When the abdomen is markedly distended between the umbilicus and the Xiphisternum, I think it is generally due to fulness of the colon and the obstruction is either in the sigmoid or rectum. On the other hand,
when the obstruction is at the ileocaecal, the distension is more general and not so marked in the upper part of the abdomen. To be able to palpate the tumour that is causing the obstruction is rare. The peristalsis of the bowels as seen through the abdominal walls, helps us to diagnose the site of the obstruction, especially in thin subjects. I remember two cases with a splendidly marked "ladder pattern", where a diagnosis of obstruction near the ileocaecal valve proved to be correct. The one, a child with obstruction by an adhesion from old appendicitis, and the other, obstruction by a persistent Meckels diverticulum in a woman. When the peristalsis is seen in the region of the ascending or transverse colon, the obstruction is lower down in the colon or rectum.

Visible peristalsis alone, however, does not necessarily mean obstruction. I remember a very thin woman, whom a doctor sent in as an acute obstruction, in which the peristalsis was very active and visible. The patient, however, had vomiting and diarrhoea. On questioning, the woman told me one of her children was the same, and I considered it a case/
case of poisoning from some food they had taken. The woman got quite well after a few days medical treatment. In this case the pulse was only 80. The abdomen was quite soft on palpation, and there was no distension. It is not uncommon to see peristalsis in very thin subjects.

The diagnosis of the cause of acute obstruction is frequently not made previous to operative treatment.

Acute obstruction from Bands, Tuberculous Peritonitis, Pelvic cellulitis and Meckels diverticulum.

In cases of acute obstruction due to these causes that I have seen, Tuberculous Peritonitis may sometimes be diagnosed by the general appearance of the patient. Obstruction by bands and adhesions may be suspected where there is a history of previous operation or inflammatory trouble.

These cases run a shorter course than an acute obstruction or a chronic, which have sometimes had constipation for a week before the acute symptoms set in.

ACUTE OBSTRUCTION BY A GALL STONE.

Neither of the two cases that I saw had been diagnosed. In one, her doctor said bile had been present in the urine. In the other, there was no history/
history of jaundice.

ACUTE OBSTRUCTION BY VOLVULUS.

In a case of volvulus of the caecum that I saw, there was great distension of the abdomen.

INTUSSUSCEPTION.

Symptoms of obstruction in a young child at once arouse our suspicion of intussusception. The intermittent attacks of pain, the blood from the rectum, and the presence of a sausage-like tumour in the abdomen (although I remember being unable to palpate any tumour in a child that had an intussusception), and of course when we can feel the included bowel in the rectum, make the diagnosis of intussusception certain.

DIFFERENTIAL DIAGNOSIS OF ACUTE OBSTRUCTION.

While I think that I have shown that the diagnosis of the cause and site of the obstruction is attended with great difficulties, the pain and vomiting and absolute constipation make the diagnosis of acute obstruction almost certain.

We must remember, however,

TWISTED OVARIAN TUMOUR.

Here, although we have persistent vomiting and pain, the constipation is not absolute, and frequently a tumour/
a tumour can be felt.

**GENERAL PERITONITIS FROM INFLAMMATORY MISCHIEF.**

I remember cases of general peritonitis that were sent in as acute obstruction. In these cases the temperature is $100^\circ - 102^\circ$ F, but of course one cannot be certain that one has not to deal with a general peritonitis following an acute obstruction. In acute obstruction, if seen early, the temperature is not as a rule above $99^\circ$ or even subnormal.

**PNEUMONIA.**

Recently, a child was sent in as an acute obstruction. The child looked very ill, the abdomen was distended and tender. The child was found to have double pneumonia, and the bowels acted after enemata. I have seen some abdominal distension in pneumonia, especially in children.

**PERFORATED GASTRIC OR DUODENAL ULCER.**

The diagnosis of this serious illness is of great importance, because if diagnosed in the first six hours after the perforation, the patient's life can almost certainly be saved. During my residence here 21 perforated Gastric or Duodenal Ulcers have been operated on. Of these, nine recovered, twelve died.
These 21 cases were made up as follows:

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 20</th>
<th>Between 20 - 30</th>
<th>30 - 40</th>
<th>40 - 50</th>
<th>50 - 60</th>
<th>Over 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site of Ulcer.</td>
<td></td>
<td>Gastric</td>
<td>Duodenal</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sex</td>
<td></td>
<td>15</td>
<td>6</td>
<td></td>
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<tr>
<td>Duodenal</td>
<td></td>
<td>Male 7</td>
<td>Female 8</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Gastric</td>
<td></td>
<td>Male 7</td>
<td>Female 8</td>
<td></td>
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</tbody>
</table>

From these figures it would appear:

1. Age for perforation to occur is more commonly between 20 and 30, but no age up to 60 to be exempt.
2. That perforated Gastric Ulcer is twice as common as perforated Duodenal Ulcer.
3. That Perforation occurs more frequently in the male in Duodenal Ulcers.
4. /
4. That perforation of Gastric Ulcer occurs about equally in the male and female. But if we allow Gastric Ulcer to be more common in women, then perforated is more likely to occur in males.

I think the last fact is explained by the heavier labour of men.

THE HISTORY.

A history of pain after food or indigestion, can nearly always be obtained. A previous attack of haematemesis is very uncommon, but I remember a case where the perforation was the onset of the case. The pain was so slight as to give the patient no trouble, and he had no idea that he was seriously ill.

The onset is almost instantaneous. The pain is very severe and doubles the patient up, and causes them to lie down on the ground. The pain is constant and does not go away. The patient retches, but as a rule gets nothing or very little up, in fact they frequently tell you they wish they could vomit. I regard the suddenness of the onset and the absence of vomiting as most important.

ON EXAMINATION

In early cases -

The/
The patient is in great pain, and frequently is groaning. He lies with his legs drawn up and frequently on his side in a cramped position. The pain, he tells us, is as bad as ever it was. The face has an anxious expression and is frequently cyanosed in appearance. The pulse is about 90 and the temperature is subnormal 96° - 97°.

ON EXAMINING THE ABDOMEN.

The patient will point to somewhere between the Navel and the Xiphisternum as the situation of the maximum pain. The abdomen is retracted and there is a sort of constricting band situated as in figure. This can be seen, and on asking the patient to take a "deep breath", the abdominal muscles remain rigid and the constriction becomes more marked.

This constricted band I regard as the most valuable sign for the early diagnosis of ruptured gastric or duodenal ulcer. Since it was first pointed out to me I have never seen a case of early rupture in which it was not present.

The site of this constriction is at the linea transversae of the recti muscles. The recti muscles are made/
are made to contract by a referred stimulation from the ruptured Viscus and the linea tranversae act as fixed points.

ON PALPATION.

The abdominal muscles are very rigid, more so above the level of the Umbilicus. The tenderness is very great between the Umbilicus and the Ensiform.

ON PERCUSSION.

ABSENCE OR DIMINUTION OF THE LIVER DULNESS.

This sign is extremely variable. While we can be certain of a ruptured Viscus when the liver dulness is gone, I remember cases where I could make out no loss of liver dulness, in which there was a ruptured gastric ulcer. It depends upon the amount of gas free in the peritoneal cavity, and this is very variable. Sometimes there is a rush of gas when the abdomen is opened, and at others only a few bubbles of gas.

I noticed impaired resonance as in figure in some of our cases. Moveable dulness in the flanks - I have never been able to obtain this. My experience, with this and other abdominal conditions with free fluid in the abdomen, is that the amount of fluid has to be large, before moveable dulness/
dulness in the flanks can be obtained.

RUPTURED GASTRIC OR DUODENAL ULCERS.

Cases seen several hours after rupture.

Cases that are seen several hours after rupture are characterised by great distension, tympanitic abdomen with rigid muscles. The pulse is rapid 120 upwards. The temperature raised above 100°F, and unless the history is very typical, are generally diagnosed as General Peritonitis, the cause of which is unknown.

DIFFERENTIAL DIAGNOSIS.

Perforated Appendix. This I have seen at least twice confused with perforated gastric ulcer. I think if we attend to the history of the case and to the points that I have tried to bring out in examining the abdomen in each disease, that we ought to be able to distinguish the two diseases.

VOLVULUS.

I remember a case that was diagnosed Volvulus. The patient was an elderly man. His abdomen was very distended and tympanitic all over. He had had pain 5 or 6 days with constipation. He was cyanosed and his pulse was rapid. He died suddenly after a few breaths of Ether, when about to be operated on.

On/
On opening his abdomen post mortem, it was like pricking an inflated football. The gas rushed out and there was a perforated gastric ulcer.

GALL STONE AND RENAL COLIC.

I do not think the rigidity of the abdominal muscles so marked or persistent in these conditions. A previous attack of a similar nature is in favour of Renal or Gall Stone Colic.

AN ULCER ALMOST BURST OR LEAKING.

I had one of our nurses, who was seized with a sudden very severe pain in the abdomen while lifting a mattress. She had had indigestion for some time previously. The temperature was subnormal and pulse 76; she looked very ill. I watched her every two hours; the pulse did not go above 90. Her temperature rose to 100°F, but her abdomen did not get more rigid. She recovered after a long illness. Mr. Cuff, who saw the nurse with me, regarded it as an ulcer which had almost perforated with some localised peritonitis.

RUPTURED ECTOPIC GESTATION.

The menstrual history must be inquired into and any irregularity must make us more careful before we diagnose ruptured gastric ulcer.

TWISTED OVARIAN TUMOURS.
This condition gives rise to acute abdominal symptoms, viz., Pain, Vomiting, Constipation if present can usually be relieved by enemata, but the pain continues.

The Diagnosis.

If we have a history of an abdominal tumour with a sudden onset of pain and vomiting, we may suspect that some twisting of the pedicle has occurred. I mention this condition because I saw two very interesting cases, which show that this condition is not always extremely acute. One was a woman who was sent into the medical wards as a gastric case with vomiting. The vomiting stopped but the pain continued. After two weeks the House Physician discovered an ovarian tumour. An operation was done and an ovarian tumour with its pedicle twisted twice was found. The pedicle probably twisted at the onset of the pain and vomiting. The second was a very similar case with a history of over a week.

RUPTURED ECTOPIC GESTATION.

This serious condition also has to be taken into account in diagnosing acute abdominal illnesses in the female.

Diagnosis. In any acute abdominal illness in the female/
female, we should go into the menstrual history. Any departure of the patient from her usual cycle should arouse our suspicion.

In the cases that I have seen here, the history has nearly always been - Patient has had a child or a miscarriage, which has been followed by a period of sterility (sometimes several years). The menstruation has been regular till just previous to the attack, when the patient has gone a week or longer over time.

The patient usually has severe abdominal pain, and sometimes a lump rising up from the pelvis, - when severe haemorrhage has occurred. There is blanching of the face, restlessness, sighing, respiration, and very rapid pulse, 140, and sometimes dulness in the flanks.

Vaginal examination sometimes discloses a lump in one or other of the fornices, and a brownish discharge from vagina is in favour of Ruptured Ectopic.

I am not going further into the diagnosis of ruptured ectopic gestation; I have mentioned it to show the main points that can prevent us from comparing this illness with other abdominal conditions in the female.
female.

CONTUSIONS OF THE ABDOMINAL WALL AND ABDOMINAL VISCERA.

These give rise to very interesting conditions. The patient is sent into hospital with the history of a blow on the abdomen or a crush from being run over by a vehicle.

The abdomen is very tender and rigid. The pulse is up 100 - 120. The temperature is about 99°. These cases must be very carefully watched every hour, and a surgeon should see them. In three or four cases that I have seen, on observation the pulse did not increase in rate, the rigidity decreases, but the temperature runs a curious course for about seven days, going up to as high as 101°F. I remember one case that after 24 hours, although I thought the rigidity was less and the patient was not worse, in which the surgeon did a laparotomy because the temperature was 101°F, all that was found was bruising of the abdominal wall and a small haemorrhage into the mesentery. The patient recovered after being stitched up, without further interference.

This rise in temperature after contusions is evidently analogous to post operative fever and is due to the absorption of the traumatic effusion.

GALL/
GALL STONES, EMPYEMA OF GALL BLADDER, CARCINOMA OF GALL BLADDER, AND OF HEAD OF THE PANCREAS.

These conditions, as a rule, do not come under acute abdominal illnesses for diagnosis. But sometimes, especially the first two, give rise to such acute symptoms as to give great difficulty and anxiety.

When we have severe pain, vomiting and perhaps rigors with a temperature 102° and a pulse 110 - 130, with jaundice, or a history of jaundice, and perhaps a tumour in the region of the Gall Bladder, one would at first be inclined to diagnose an empyema of the gall bladder.

My experience has been that these cases, as a rule, quiet down under medical treatment, and if the patients are operated on after the acute symptoms have subsided, no pus is found.

What is it that is causing these attacks of shivering and rapid pulse?

These cases require very careful watching and my experience only tells that these attacks do not necessarily mean an empyema of the gall bladder as one would at first suppose.

In the abdominal illnesses that I have discussed, I have endeavoured to restrict myself to the diagnosis of/
of the acute cases that demand perhaps immediate surgical interference for their successful treatment. On the other hand, my experience as a resident in a hospital has taught me that, while these abdominal cases are very difficult of diagnosis, a little more care on our part as practitioners, would make, in several cases, an accurate diagnosis possible. Or at least prevent us from asking a surgeon to do a laparotomy in such illnesses as lead poisoning and pneumonia, or on the other hand, by diagnosing correctly in such a serious condition as a ruptured gastric ulcer, we do not waste time in taking measures to save the patient's life.