So the true value of the argument, that because ulcers are rare in malignant disease, abscess, peritonitis, tuberculosis, and pneumonia therefore they can have no connexion with the simple ulcer of the stomach and duodenum, found in apparent. That they can have no causative connexion is, of course, clear, but if we postulate the existence of cytolytic toxins or toxins behind both sets of conditions a definite connexion is at once suggested.

5. Some cases of gastric ulcer never have haematemeses at all. It cannot be asserted that there is in any given case been no haemorrhage, unless both gastric and intestinal contents have been repeatedly examined both microscopically and macroscopically. A large haemorrhage is not at all necessary for the production of an ulcer. A small haemorrhage may be, and sometimes is, entirely missed. An analogy may be found in those not infrequent cases of pulmonary tuberculosis who from first to last show no sign of haemoptysis. It cannot be entirely because vessels are not involved in direct tuberculous ulceration. There must be some other factor to account for such cases. In these cases, where perhaps there is not even streaking of sputum, it may be that the natural store of antihemorrhagins is large and that of hemorrhagins small. In cases of gastric ulcer where precedent haemorrhage can be absolutely excluded hemorrhagins and mucolytics may be found. In such ease ulceration may be initiated by a deposit in mucous epithelium of mucolysins from the lymph stream, as suggested in the scheme under the heading of the purely mucolytic type.

6. Many cases of gastric pain and vomiting (non-haemorrhagic) have presented, and yet no ulcer or traces of ulcer can be found. If the hemorrhagin theory of ecchymosis be adopted the difficulty at once disappears. That an ecchymosis should be accompanied by pain is only to be expected. If the hemorrhagins had in a certain measure determined the amount of pain and both would depend on the degree of extravasation. Recurring attacks of pain would be explained by recurrent ecchymosis. The absence of hemorrhage and of ecchymosis would depend on the amount of mucolysin or of immunity to its action. It is notorious that vomiting may be produced by different kinds of acute pain. Pain produced by the tension of an ecchymosis might easily excite vomiting. Again, it has often been noticed how frequently an attack of gastrostaxis may relieve pain.

7. Perforating cases of ulcer are seldom preceded by recent severe haematemesis. If the cytolytic theory be adopted a severe haemorrhage is not at all likely to be followed by ulcer and perforation because of the draining off of hemorrhagins and mucolytics caused by the hemorrhagin. Gastric mucosa would, in fact, be more or less free from them. Again, the acute perforating ulcer would be more likely to contain a very small deposit of hemorrhagins than other types of ulceration. It will be seen that the presence of hemorrhagins would depend on the route of hemorrhage. Again, the acute perforating ulcer would be more likely to contain a very small deposit of hemorrhagins than other types of ulceration. It may be seen that the presence of hemorrhagins would depend on the route of hemorrhage.

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9. So the true value of the argument, that because ulcers are rare in malignant disease, abscess, peritonitis, tuberculosis, and pneumonia therefore they can have no connexion with the simple ulcer of the stomach and duodenum, found in apparent. That they can have no causative connexion is, of course, clear, but if we postulate the existence of cytolytic toxins or toxins behind both sets of conditions a definite connexion is at once suggested.

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11. From these considerations it is clear, if it can be established, (1) that no other theory as yet put forward brings into line so apparently incongruous manifestations as ulcer without haemorrhage, haemorrhage without ulcer, perforation without haemorrhage, &c.; (2) that it is useless to expect to find in the deadhouse conclusive evidence of cause and effect of haemorrhage and ulcer beyond that of extravasation; (3) that the present-day medical treatment of the conditions must be modified; and (4) that the use of surgery in combating a profound toxemia must be carefully restricted.

It may well be asked what proof is there (1) that the forms of gastric ecchymosis, gastrostaxis, and gastric or duodenal ulceration heretofore discussed are, individually or collectively, the commonest causes of intestinal obstruction. The evidence I wish to submit as ulceration is of two kinds. 1. Direct evidence of cytolytic toxins in man in cases of ulceration where perhaps there is not even streaking of sputum, it may be that the natural store of antihemorrhagins is large and that of hemorrhagins small. In cases of gastric ulcer where precedent haemorrhage can be absolutely excluded hemorrhagins and mucolytics may be found. In such ease ulceration may be initiated by a deposit in mucous epithelium of mucolysins from the lymph stream, as suggested in the scheme under the heading of the purely mucolytic type.

THREE CASES OF INTESTINAL OBSTRUCTION.

BY R. D. MOTHERSOLIEL M.S., M.D. LOND., F.R.C.S. ENG., HONORARY SURGEON TO THE BOLTON INFIRMARY AND DISINFIRMARY.

CASE 1. Volvulus of the small intestine.—The patient, a man, aged 32 years, was admitted to the Bolton Infirmary on April 13th, 1906, with a history of about a fortnight’s illness. On April 10th he was seized with abdominal pain and vomiting, becoming gradually worse till the 12th, when the vomit became fecal. There had been complete constipation since the 9th, not even flatus having been passed. On admission he was evidently in a very serious condition and an immediate operation was decided upon. On opening the abdomen in the middle line below the umbilicus a very distended coil of small intestine was found apparently twisted on itself, but it was so tense that it could not be untwisted without emptying it of its contents. It was therefore incised and a quantity of liquid contents allowed to escape. It was then seen that no small intestine had passed over a band or omentum which was attached to the abdominal wall in the region of the appendix and the loop had become twisted on itself through a complete circle. It could now be readily untwisted and the omental band was divided and removed. It was considered advisable to drain the bowel for a time, so a Paul’s tube was tied into the incision already made. The bowel having been carefully cleansed was then re-anastomosed. The opening closed very rapidly and on May 10th the wound became very red and raw but by keeping it coated with zinc ointment it soon resumed the normal condition. The opening closed very rapidly and on May 10th only allowed the escape of gas. On the 13th it had quite closed and on the 20th the patient was discharged from the infirmary. Since then he has had good health, except for an attack of indigestion caused by eating new bread.

CASE 2. Subacute obstruction of bowels probably due to alterations in kinking.—The patient, a man, aged 36 years, was admitted to the Bolton Infirmary on July 8th, 1906. His illness began with flatulence and on the following day there was abdominal distension with vomiting of everything and no passage of flatus or stools. On admission, after about a week’s illness, the abdomen was much distended and he complained of lancinating pains, mostly round the umbilicus. Shortly after admission the patient complained of an attack of indigestion caused by eating new bread.

FOREWORD.

Three cases of intestinal obstruction.
A CASE OF COMPLETE GASTRECTOMY.1

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With a Pathological Report by F. CRAVIN Moore, M.D.,
M.Sc. Vict., M.R.C.P. LOND., Honorary Physician to
the Ancoats Hospital, Manchester; Lecturer on
Medicine in the University of Manchester.

The following are the notes of a case in which I removed
the whole stomach on account of its universal implication in
a malignant growth. For this case after operation I am indebted to Mr. E. R. Flint,
house surgeon at the Leeds General Infirmary. The
pathological investigation and report were most kindly under-
taken by Dr. Craven Moore.

The patient, a married man, aged 43 years, who had been
under the care of Dr. Peter Macdonald of Accomb, was
admitted to the Leeds General Infirmary on May 24th, 1907.
He was the father of two healthy children and had always
been healthy himself, the only illnesses which he could
remember being influenza two or three times and an ileo-
rectal abscess some ten years previously to admission. He
had always had as his occupation the management of horses
and had thus always been in a presentable situation five
years. He said that all his relatives, so far as he could
remember, had died from "old age." He had been in
good health up to two years ago when he gradually begun to
get rather more hungry and take food. By this he meant that he did not
want his food quite as he had been accustomed to do.
He could eat anything but was afraid of the pain which he
knew would come on after eating anything. This pain,
which was relieved by food for an hour or so, was situated
in the epigastrium and continued until he vomited, when it
at once subsided until an hour after his next meal. The kind of
food taken made no difference to the pain experienced.
The vomiting commenced as a profuse gush, and in the vomit
he recognised food which he had taken at his last meal.
There was never to his knowledge any hematemesis. After
the first six months he was free from any weeks from pain
and vomiting, but at this time he was under medical super-
vision and was taking liquids chiefly; he had his stomach
washed out every other day for two weeks and was away from
work for eight weeks. The stomach contents at this time
were analysed as there was a suspicion of cancer in the
medical attendant's mind; but the analysis gave a normal
result. After eight weeks he returned to work still taking
fluids and feeling much better, but every now and then he
had attacks of vomiting and pain; he noticed that he began
to feel the pain at shorter intervals after his food was taken,
and that he was relieved by vomiting. After a few months
he steadily losing weight, which had fallen from 11 stones
4 pounds to less than 9 stones. He had also noticed
that the amount of fluid taken at any one period was
much less than formerly, until last Christmas, when
the amount was so diminished that he was only able to take
three or four mouthfuls at a time before he expe-
rienced a feeling of discomfort and vomited. From
that time to the time of his admission this diminution in
amount continued.

On admission the patient was in fairly good condition, but
he looked as though he had been a stouter man at some
time, his skin was somewhat loose, his muscles were flabby,
and his cheeks were a little hollowed. His weight was 8 stones
4 pounds. When he was given some fluid to drink he merely
sipped it a mouthful at a time and had to wait a few seconds
(about ten seconds) before the fluid settled—"he gulped and
strained his neck forward as though trying to get the-
fuid down his throat." He was frequently hungry.
This hunger was of about six months' standing. It was
not so severe as to prevent his eating up to his usual
amount continued.

His medical history was quite unimportant. He had been
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