The symptoms were cured in every case except one, in which either the prolonged treatment the patient had already undergone at the hands of another radiologist had set up an immunity to x rays, or I had made the mistake of giving her small repeated doses instead of the 40 per cent. dose which I should apparently have ventured to give her in spite of her youth and the x rays she had had before. The tumours in every case I examined after had diminished in size—in one case very markedly so; and the pressure symptoms have abated, except in one case. This patient tells me by letter that she is still short of breath, but she does not feel bad enough to come to see me, although I have urged her to come, and she writes very gratefully.

It is remarkable how well the patients seem to feel, and although in about one-third of the cases they complain of some flushings, the complaints are not as bad as those of some of my patients who are going through the normal climacteric.

When I turn to my older cases—some of them now nine years old, and a large number of which I reported at the Cambridge meeting of the British Medical Association—I have no failure to report in the first twenty people who answered my letters of last month. They have all done well and had no further complications, and all are extraordinarily grateful and satisfied with their treatment. But when I think of the number of their treatments and the hours they and I and my x-ray sister spent over them, I cannot help being thankful that at last such a sure and certain treatment can be offered to patients suffering from climacteric haemorrhage and from interstitial fibroids smaller than a five months' pregnancy. Indeed, I would like to urge that we do what is being done in all the university hospitals abroad—that is, that every gynaecological clinic should have its own x-ray installation and personnel—for I am more and more convinced that it is the gynaecologist who should undertake the x-ray treatment of gynaecological conditions.

The only drawbacks are, of course, the expense of the apparatus and the necessity of very accurate work in calibrating both tubes and apparatus, and the paramount importance of conscientious dosage and filtering, as well as unbiased and accurate diagnosis in every individual case.

On the other hand, it seems only right to be in a position to offer a method of treatment so easy and comfortable for the patient, involving no period of time off work, no

unpleasantness of an anaesthetic, no long period in a nursing home or hospital, and, above all, a treatment involving no risk to life.

DISCUSSION.

The PRESIDENT said the subject was too big for the Section to discuss fully in the limited time available. He had to confess at the outset that he had no use at all for x-ray treatment. He could remember the days when the ovaries were extirpated with the idea of curing fibroids, and it seemed to him that x-ray treatment was a return to those methods of barbarism. He had always, even before the war, had a profound distrust of Germans, and did not believe their results. Castration for gonorrhoea seemed to him to be gynaecology gone mad, and similarly x-ray treatment for pyosalpinx. For fibroids he was immensely in favour of myomectomy. He had seen the most violent menopause symptoms produced in young women by x rays. He had recently had a case of the most diffuse cellulitis of the abdominal wall set up by exposure to x rays. He looked upon x-ray treatment of fibroids as a most retrograde step, and when operation was attempted after their use the difficulties were increased a thousandfold.

Dr. FORSDIKE (London) confessed that he had not realized the depths of his ignorance until he listened to Dr. Martindale's paper with its maze of technicalities. He repeated what he had said in the paper he had read that morning—that in his view all forms of radiation were absolutely contraindicated in the presence of pelvic peritonitis. He had clearly demonstrated that the ovary never recovered if radiation was pushed to the point of castration—temporary castration was impossible.

Mr. BECKWITH WHITEHOUSE (Birmingham) wished to associate himself entirely with the remarks made by the President. He regarded castration as most emphatically a retrograde step. He asked Dr. Martindale whether she had observed any cases of severe anaemia from destruction of red cells following x-ray treatment.

Dr. MARTINDALE, in reply, said that she did not think it was quite fair to compare her results with the tragedies quoted by other speakers. She had had no cases of severe anaemia; her patients had all been wonderfully improved.

RUPTURE OF THE ABDOMINAL AORTA: DEATH FROM ACUTE INTESTINAL OBSTRUCTION.

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As an exhaustive research into the literature has failed to disclose a similar complication of rupture of the aorta, I venture to record this case.

On December 26th, 1922, whilst walking in his house the patient, a man aged 52, very stout, a moderate drinker, without history of syphilis, was seized with severe intermittent pain in the right testicle. On the following morning the pain had almost subsided, but returned on his attempting to walk. There was a slight rise of temperature each evening. On January 10th the pain in the testicle returned quite suddenly, and he was admitted to the Torbay Hospital. The radial arteries were found to be rather rigid; the blood pressure was 200 mm. Hg. The patient had passed a restless night owing to abdominal distension and the frequent eructation of gas by the mouth; later he commenced vomiting greenish fluid, which later in the day became brownish and of markedly faecal odour. Death occurred the same day. The Wassermann reaction was negative.

Necropsy.—The right lung was firmly adherent to the parietal pleura; there were fibrous scars in both apices. The heart was markedly hypertrophied, but the valves were normal. Macroscopically, the thoracic aorta showed no abnormalities. The intestines were greatly distended with gas. A dark blue mass was seen bulging the parietal peritoneum in the right half of the abdomen. The ascending colon was embedded in the retro-peritoneal mass, but the caecum and appendix were recognizable. Incision of the peritoneum revealed a large blood clot reaching to the upper pole of the right kidney and downwards into the pelvis. The ascending colon had been separated from its peritoneal covering and was so completely surrounded and compressed

by the clot that its lumen was almost obliterated. A portion of the clot in the immediate vicinity of the aorta was dark brown and harder than the rest; it was probably older and due to an earlier leak, which may have been responsible for the collapse and pain referred to the testicle on December 26th, a fortnight before death. After clearing away the clot, there was found in the right wall of the aorta, 15 mm. above its bifurcation, a hole 12 by 6 mm.; and a calcareous plaque, beyond which the aorta had given way, and which was still attached to the edge of the perforation. The wall of the abdominal aorta above and below the site of rupture was almost completely calcified.

The rupture appears to have taken place in two stages, as may happen in dissecting aneurysms, the tear involving first the inner tunics, and eventually the external.

It is interesting to note that Durand and Marquiez¹ record a case of dissecting aneurysm of the abdominal aorta in a woman with active tuberculosis and no signs of syphilis, and Muselier² describes the case of sudden rupture of the abdominal aorta in a woman of 55, with double apical pulmonary tuberculosis and without evidence of syphilis; though what the precise connexion is between the two conditions has not been demonstrated.

Although spontaneous rupture is associated with the later half of life, Oppenheimer³ records the case of a girl aged 9 years, in apparently good health and without a history of syphilis, who died from intrapericardial rupture of the thoracic aorta associated with advanced arterio-sclerosis. A similar case is reported by Sparks⁴ in a patient aged 16 years.

Syphilis plays an important part in spontaneous rupture of the ascending aorta, but cases are recorded in which rupture followed ulcerative aortitis, suppurative endocarditis, gonococcal salpingitis, and pyaemia.⁵

In the museum of St. Thomas's Hospital there is a specimen (1676A) of a clean transverse rupture of the inner coats of the upper part of the descending thoracic aorta leading to diffuse and extensive haemorrhage into the surrounding connective tissue. There is no macroscopic disease of the vessel, but microscopic examination revealed the presence of marked fatty degeneration of the intima. The patient, a lad aged 18, experienced acute pain in the abdomen for three days, but complained of nothing until the day of his death. When seen, four hours before death, there was nothing in the symptoms to suggest that he was seriously ill. Death was sudden and unexpected. No history of strain or injury was elicited; at the *post-mortem* examination the mediastinum was found full of extravasated blood and the left pleura contained three pints of it. That the rupture occurred in two stages is clear from the fact that, microscopically, the termination of the rent in the inner tunics is seen to be undergoing repair.

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THREE CASES OF GASTRIC CARCINOMA PRESENTING UNUSUAL FEATURES.

BY

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THE following cases of carcinoma of the stomach appear to be worthy of record in view of the anomalous symptoms they presented.

1. Simulating Chronic Intestinal Stasis.

A man, aged 54, was sent to me for suggestions as to treatment for chronic constipation. He was a thin but muscular man, who gave a history of very severe constipation of twelve months' duration, and of failing vision for the same length of time. His appetite was good and he had only vomited twice—once three weeks before and once seven days before my examination. He had had no pain after food, no vomiting of blood, nor melaena.

On examination of his abdomen I found no distension nor tumour, nor was there any tenderness to be detected, but there was a suspicion of visible gastric peristalsis, and this was confirmed at a later examination. All further examination was negative. I referred him to an oculist, who reported early atrophy of both optic discs, and after exclusion of pituitary tumour he suggested that the condition might be due to the absorption of toxins from his stomach. A neurologist, however, put down the condition of the optic discs to early tabes dorsalis. A test meal showed the absence of free hydrochloric acid. X rays showed that there was marked dilatation and hypertrophy of the stomach, which was not completely emptied for twenty-four hours after ingestion of the bismuth meal. A diagnosis of pyloric obstruction, probably due to a healed ulcer, was made. At operation a tumour was found, involving the greater curvature near the pylorus (microscopical examination later proved it to be columnar carcinoma). The pylorus admitted the tip of the little finger easily. There were no enlarged glands to be felt, nor was there any other evidence that the growth had extended beyond the stomach. Partial gastrectomy was performed by the posterior Polya method, and the patient left hospital on the twenty-first day. His constipation immediately disappeared, he put on weight, and ten months after the operation he informs me that his vision has improved and that his condition is in all respects satisfactory.

2. Simulating Gall Stones.

A man, aged 52, with the diagnosis of gall stones. He gave a history of discomfort after food for several years, but had had no real pain after food and had never vomited until six weeks before I saw him, when he was seized with agonizing pain in the right hypochondrium, with vomiting. This pain subsided, and twenty-four hours later he became slightly jaundiced. He had had two other almost exactly similar attacks before seeing me, and in every instance these attacks occurred in the evening.

On examination I found him to be a well nourished man of healthy appearance. The abdomen moved well on respiration; no tumour was felt, but there was marked tenderness over the tip of the ninth costal cartilage, and this tenderness was accentuated at the end of inspiration. At operation a well marked carcinoma of the pylorus was found. This was adherent to the neck of the gall bladder and was separated from it with some difficulty. The gall bladder contained no stones, and its wall showed no gross pathological change. Partial gastrectomy was performed by the anterior Polya method. As there was considerable oozing from the region of the neck of the gall bladder a small drain was left in for twenty-

four hours. The patient developed a slight duodenal fistula on the ninth day, which healed within a few days, and the man was discharged in a satisfactory condition on the thirty-seventh day. He has put on weight since operation, his paroxysmal attacks have disappeared, but he complains of pain in the left hypochondrium, particularly if he becomes constipated. Presumably this pain is due to pressure upon the transverse colon by the anastomosis.

3. Simulating Acute Intestinal Obstruction.

A woman, aged 68, came under my care with the following history. The day before admission to hospital she suddenly became ill with acute abdominal pain, vomiting, and distension. Her doctor ordered enemata without effect, and an immediate operation was advised, but this was refused. He therefore administered morphine and next day she came under my care. She was a thin anaemic woman and looked acutely ill. She informed me that her previous health had been good, but that for the last year she had been losing weight and her appetite had become poor. She complained of intense abdominal pain, chiefly in the right hypochondrium, and she vomited half a pint of dark material during my examination. Her pulse was 100 and of fair quality. The abdomen showed extreme distension, especially in its lower half, the upper abdomen being comparatively flat. Rigidity was present in the right hypochondrium, and on deep palpation a tender tumour could be felt. This did not move on respiration, but on account of its rigidity its outline could not be felt. The stomach appeared not to be markedly dilated, but splashing was easily elicited. No gastric nor intestinal peristalsis was seen. A turpentine enema produced a large passage of flatus, the distension completely disappeared, and in twenty-four hours the patient's condition had greatly improved, and all vomiting had ceased. Forty-eight hours after admission she suddenly collapsed and died. At the *post-mortem* examination a huge carcinoma of the pyloric end of the stomach was found. The stomach was markedly dilated and was full of fresh blood, which came from the splenic artery, into which the growth had ulcerated. There was no stricture nor other lesion of the intestinal tract.

These cases illustrate the difficulty of diagnosis in many cases of gastric carcinoma, and demonstrate the importance of radiological examination of the alimentary tract in obscure cases of abdominal disease. Early diagnosis of gastric carcinoma is of paramount importance. In its early stages it is very amenable to surgical treatment, while the last stages of the condition when left without operation are, alas! often terrible to the patients and very distressing to those around them, while recurrence after gastrectomy in many cases causes death from asthenia with slight or no suffering. Carcinoma of the stomach appears to be on the increase. It is a very protean disease, and from the point of view of diagnosis the cases may be divided into three classes:

1. Those with symptoms of gastric disorder—often labelled dyspepsia or gastritis until too late.
2. Those with signs of malignant disease in which the site is not discoverable—for example, cases which are at first diagnosed as pernicious anaemia, Addison's disease, etc.
3. Anomalous cases, three of which are described above.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ANTISTREPTOCOCCUS SERUM IN ERYTHEMA NODOSUM.

ERYTHEMA NODOSUM is most commonly described as a rheumatic affection, and the treatment in the many and various books I have consulted is invariably some preparation of salicylic acid. The prognosis as regards recovery is of course good, but the usual duration is about five or six weeks and appears to be almost uninfluenced by the usual treatment; recovery is followed by prolonged convalescence in which a rather intractable anaemia is conspicuous.

About three years ago I had two cases. The first was a woman, aged 48, who had a quinsy; about a week or ten days after its commencement, and when the throat was practically well, typical erythema nodosum developed; this lasted about five or six weeks; recovery was slow and more or less uninfluenced by the usual treatment. The second was a man of 28 who had follicular tonsillitis, followed in about ten days by a typical attack of erythema nodosum. He was treated in the usual way, and recovered in about five or six weeks. In neither case was there any history of rheumatism, and in both cases convalescence was prolonged. These two cases occurred about the same time,