PERFORATIVE DIVERTICULITIS OF THE COLON

BY

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(With Special Plate)

Of the conditions which may give rise to an acute abdomen, a perforative diverticulitis of the colon is comparatively rare, and it is still rarer for the diagnosis to be made with any degree of confidence. Such a case diagnosed correctly on clinical grounds was described by Sir I. de C. Wheeler in the *British Medical Journal* of January 4th, 1930.

Recently it was possible for me to recognize a case of perforative diverticulitis with tolerable certainty, as a few days after I had diagnosed diverticulitis with the aid of a barium enema, the patient developed an acute abdomen.

The patient, a Norwegian air pilot, aged 40, came to see me on December 29th, 1930. He had had some pain in the lower abdomen for ten days previously. For the first eight days the pain was not bad, but for the last two days it was very severe and kept him awake all night. It came in spasms, some of them being so severe as to double him up and make him shout. The pain was not related to food, yet he was afraid to eat lest it came on again. His appetite was very good, and he felt quite comfortable in the intervals between the attacks. He had had similar pains about one year previously in Norway, but was put on a "diet," and had then no further trouble.

During the attacks he found it painful to urinate. He had frequency of micturition by day, and at night waked once or twice. He was also somewhat constipated. His tongue was furred, and there was definite tenderness in the lower abdomen, in both iliac fossae, and in the middle line. The liver and spleen were not palpable. He had large external haemorrhoids. The urine was normal.

He was ordered an enema, which made him more comfortable. The following day he was given a barium enema, which showed that the pelvic colon was markedly pulled over to the right iliac fossa, and a number of diverticula were seen. He was then given a barium meal; after twenty-four hours, examination again revealed the presence of multiple diverticula and the sigmoid flexure pulled over to the right. I therefore came to the diagnosis of diverticulitis with adhesions of the sigmoid colon to structures in the right iliac fossa. This was on December 31st, 1930. His pains had greatly diminished, and he was feeling quite well.

At 8 a.m. on January 2nd, 1931, his pains came on again, but now with much greater severity. He vomited twice, and I was called to see him at 2 p.m. He had a temperature of 101°, and his pulse was 100. There was great tenderness and marked rigidity of the lower abdomen, particularly on the right side. He looked ill, and there was little doubt that he had an acute abdomen. Armed with the x rays, I diagnosed a perforative diverticulitis. Mr. Lindsay Sandes was immediately called in. He agreed with the diagnosis, and operated the same evening. On entering the abdomen a large quantity of pus was immediately seen. A thickened, boggy loop of pelvic colon was found in the right iliac fossa, with a perforation of a diverticulum. A number of other diverticula of the sigmoid were also readily seen. The perforation was carefully closed, the pelvic colon brought back to the left iliac fossa, and the abdomen drained. The patient made a complete recovery.

He was x -rayed again (barium enema) on February 13th, 1931, when the loop of the pelvic colon was then seen in the left iliac fossa. Numerous diverticula were still visible in the pelvic colon. The next barium enema flowed well, showing no obstruction at the site of perforation, although the loop of the colon seemed bound down with adhesions.

COMMENTARY

Certain points of interest emerge from a consideration of the above case:

1. The fact that a barium enema examination was performed and a diverticulitis diagnosed a few days before its perforation.

2. The patient was quite well for three days after the barium enema examination, so that it cannot be held responsible for influencing the perforation.

3. Perforation of the sigmoid colon is generally fraught with grave danger, as the contents are notoriously septic. Immediate operation in the above case was followed by a complete recovery.

I wish to record my thanks to Mr. Lindsay Sandes for the manner in which he performed an admirable operation with great success.

A CALCULUS IN AN ECTOPIC KIDNEY

BY

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(With Special Plate)

A woman, aged 34, was admitted, in July, 1929, to the Nottingham General Hospital, under the care of Mr. F. C. Greig, complaining of abdominal pain and increased frequency of micturition, which had persisted during the past three years. The pain was referred to the lumbar region, to the left iliac fossa, and at times was said to shoot down the inner side of the right thigh. It was usually aching in character, was made worse by exercise, but was relieved by rest. Increased frequency of micturition had recently become very marked, amounting to twelve times during the day and three times at night. For the past eighteen months the act had been painless. About three years ago, for three weeks, haematuria was severe, but since then no blood has been noticed. Seven years ago hysterectomy was done, but no details are available.

On examination the woman appeared to be in fairly good health. There was some tenderness deep to the upper half of the median suprapubic operation scar. The right kidney could not be felt; the lower pole of the left was palpable. The urine was alkaline, and contained pus. An x -ray photograph of the pelvis is reproduced in Fig. 1 (on Plate), and shows an unusual object situated in front of the sacrum.

At Mr. Greig's request I carried out a urological investigation. The cystogram reproduced in Fig. 2 proves that the object seen in Fig. 1 is situated above and distinct from the bladder. Cystoscopy revealed a normal bladder and left ureteric orifice, but the right ureteric orifice was red and oedematous, emitting only an occasional sluggish purulent efflux. After intravenous indigo-carmin, there were copious well-coloured effluxes from the left side in six minutes, but no dye appeared on the right side after fifteen minutes. A catheter passed up the left ureter easily, but could be introduced only a few centimetres on the right side. The pyelogram of the left kidney is normal. On the right side the catheter has passed inwards towards the promontory of the sacrum, and in one film a little of the pyelographic medium can be seen to have passed down on to the object in the pelvis.

The diagnosis suggested was a dendritic calculus in an ectopic kidney, and nephrectomy was advised.

Mr. Greig opened the abdomen through a suprapubic paramedian incision, and found the kidney-fixed retroperitoneally in the hollow of the sacrum, with a coil of ileum partly covering it and firmly adherent. The pelvis of the kidney was lying anteriorly with the ureter coming off it and passing down to the right side of the bladder. The renal artery was defined with difficulty owing to the perinephritis, and whether it arose from the right common

iliac artery or from the aorta could not be determined. The kidney was full of phosphatic calculi (Fig. 4).

The woman was considerably shocked by the operation, which was very difficult owing to the firm adhesions, but she made a good recovery, and two years later was reported to be in good health.

COMMENTARY

It is an interesting subject for speculation why the left renal bud developed normally from the Wolffian duct and rose to the lumbar region, whereas the right renal bud, although it grew into a kidney, did not migrate from the site of its origin at the level of the second sacral vertebra.

This case furnishes another example of the common observation that organs congenitally misplaced are more liable to disease.

My grateful thanks are due to Mr. Greig for permission to publish this account, also to Dr. Clayton Rigby and his staff for the x-ray films, and to Dr. A. Gordon for the photograph of the specimen.

ENCYSTED EMPYEMA

BY

N. D. PATEL, M.D., M.R.C.P.

(With Special Plate)

Encysted empyemas are not very rare conditions. They are difficult to diagnose without the help of x rays, lipiodol, exploratory needle, or artificial pneumothorax. Before the introduction of these special methods of investigation they were often missed during life, the diagnosis being only made at the necropsy. The collection of pus, often pneumococcal, but sometimes tuberculous, may occur in one of the interlobar fissures, between the diaphragm and the under surface of the base of the lung, between the lung and the pericardium, or in the general pleural cavity, in the pockets formed by the adhesions of the parietal and the visceral layers of the pleura.

The following case showed a collection of pus between the lung and the right margin of the heart, and is, I think, sufficiently rare and interesting to be put on record.

R. C., a married woman, aged 28, was suffering from intermittent fever, cough, and progressive loss of weight, for about ten months, when I saw her on June 7th, 1931.

HISTORY

The history was that about a year ago she had pneumonia in the right lung following delivery. For about two months after the attack of pneumonia she remained quite well. Then she had an attack of diarrhoea, which lasted for a few days. Some days later she had a rise of temperature with rigor, and ever since she had an intermittent pyrexia (during the last eight months). For the first month or two, shivering and perspiration were frequently present. For the last four months, she had a slight hacking cough, which was, in her opinion, due to something at the back of her throat rather than in the chest. There was very little sputum. She complained of a nasty taste and stickiness in the mouth. She had lost considerably in weight—36 lb. in the last ten months.

Except for the attack of pneumonia twelve months ago, her previous health had been quite good. She had six children, five of whom had died in infancy; one was alive and well. Her appetite was good, she slept well, and her bowels were regular, though at times loose. She had had amenorrhoea for the last seven months. Her family doctor was treating her for pulmonary tuberculosis, and had sent her to Panchgari, a hill station near Bombay, popular with tuberculous patients. She stayed there for a month under the care of a specialist, but her condition got worse, and she returned to Bombay.

EXAMINATION

On examination she was found to be anaemic, wasted, and obviously in a toxic state. The fingers were tapering, parrot-beak type, and showed early clubbing. Her breath was foul,

and there was pyorrhoea alveolaris. Her temperature was 102° and the pulse rate was 100 per minute.

Examination of the lungs revealed nothing abnormal, except a few rhonchi in both lungs. The cardio-vascular, abdominal, and nervous systems showed nothing amiss. The liver and the spleen were not palpable.

Blood examinations carried out on several occasions showed no malaria parasites. There was a secondary anaemia, the red blood cells being 3,500,000 per c.mm. and haemoglobin 55 per cent. There was also a moderate leucocytosis, the white cells being 13,500 per c.mm. The Wassermann reaction was negative.

Sputum, though scanty, was repeatedly examined for the presence of tubercle bacilli, but all examinations were negative.

Examination of the urine showed the presence of a pyelitis. It was acid in reaction, and contained albumin and pus. A catheter specimen showed pus cells, *B. coli*, and staphylococci. The culture of urine showed these organisms and a pure growth of pneumococcus. No tubercle bacilli were seen, and inoculation in a guinea-pig also proved negative. An x-ray examination of the urinary tract did not show any abnormality.

X-ray examination of the chest showed that the heart was normal in size and in position. The lungs also showed no lesions but a triangular shadow opposite the right second and third costal cartilages just above the right border of the heart. It was homogeneous, and had clearly defined margins (Fig. 1, on Plate). Three weeks later, an x-ray picture was taken after injection of lipiodol. It shows up the round mass clearly, and at the same time gives an excellent picture of the normal bronchial tree (Fig. 2). The shadow suggested an enlarged mediastinal gland, either tuberculous or Hodgkin's disease, a cold abscess, a cyst, a neoplasm, or an encysted empyema.

The patient was treated for pyelitis with large doses of alkalis by the mouth, neotropine, and cytotropine injections in turn. By this treatment fever could be controlled and pus in the urine reduced, but only for a time, presumably because the kidneys were only acting as a filter, the focus of infection being in the lung.

DIAGNOSIS

Pyrexia of long duration, coming on after an attack of pneumonia, the obviously ill and septic look of the patient, clubbing of the fingers, leucocytosis, and the x-ray appearances of the chest suggested a collection of pus in the chest, and the diagnosis of an encysted empyema was made. Absence of the local physical signs in the chest are explained by the small size and situation of the empyema. As the patient was not getting any better, surgical intervention was considered, but she refused operation, and discharged herself after a month's stay in the hospital.

As the collection of pus is very small and so near the large bronchi, it is to be hoped that it will either get absorbed or that it will rupture into the bronchus and be coughed up.

Memoranda

MEDICAL, SURGICAL, OBSTETRICAL

THE SELVAGE STITCH

One of the most annoying occurrences to the surgeon is the peritoneum which will not hold sutures. This is especially trying when there is some difficulty also with the anaesthetic and the patient is not properly under. The abdominal muscles are rigid, and the peritoneum retracts far under the edge of the wound on either side. Attempts to draw it together result in a series of tears until the edge looks like a fringe. The paramedian incision, with displacement of the rectus outwards, makes it even more troublesome owing to the overlap of the muscle.

One solution is to obtain better anaesthesia; but there still remain those cases in which the patient does not take the anaesthetic well, and the abdominal wall is more or less rigid with retraction of the peritoneum; or the

J. LLEWELLYN DAVIES: A CALCULUS IN AN ECTOPIC KIDNEY

FIG. 1.—Radiogram of the pelvis of a woman aged 34, who suffered from pain in the lumbar region and left iliac fossa, associated with increased frequency of micturition, pyuria, and occasionally haematuria. There is a dense shadow of an object lying in front of the sacrum.

FIG. 2.—A cystogram. The bladder has been filled with a 7 per cent. solution of sodium iodide and the exposure made. The bladder is clearly outlined and is seen to be distinct from the other shadow.

FIG. 3.—Ureteric catheters have been passed and 12.5 per cent. solution of sodium iodide injected up them. The pyelogram of a normal left kidney is seen. On the right side the catheter has passed inwards over the shadow, and a little of the sodium iodide has passed on from the catheter to the object.

FIG. 4.—The ectopic kidney split open and mounted after its removal from in front of the sacrum.