FIG. 1.—Case i. ($\times 90$.)

FIG. 2.—Case ii. ($\times 25$.)

FIG. 1.—Showing triangular shadow within the cardiac shadow.

FIG. 2.—Triangular shadow absent. Lipiodol showing no evidence of bronchiectasis.

FIG. 3.—Showing the triangular shadow with bronchiectasis within it.

FIG. 4.—Showing bronchiectasis within the triangular shadow.

FIG. 5.—Showing triangular shadow at right base.

normal. The lower half was replaced by a cyst. A calculus about three-quarters of an inch long by half an inch wide was felt in the pelvis. The kidney was removed.

Report on Kidney and Cyst after Removal.

Fig. 4 is a skiagram of the specimen. The calculus is clearly shown. No connexion between the pelvis of the kidney and the cyst could be demonstrated. It would appear that the stone and cyst were independent of each other. The calculus was composed of pure uric acid.

Post-operative Progress.—The patient made an uneventful recovery. When seen on October 11th he was feeling well, putting on weight, and had no urinary symptoms. The urine was normal in colour, acid, clear, specific gravity 1018; no albumin, no sugar; urea 2 per cent.; there was a deposit of mucus. The centrifuged deposit showed an occasional pus cell, some epithelial cells, and phosphate crystals. No organisms were seen. Cultures were sterile.

CONCLUSIONS.

1. The passage of a ureteric catheter to the pelvis of the kidney, and withdrawal of its contained urine, will give immediate (but temporary) relief to pain arising from renal colic.

2. Repeated attacks of renal colic in an otherwise healthy person, even with a normal renal skiagram, should lead to a provisional diagnosis of stone, because a calculus of pure uric acid throws no shadow with x rays, as its consistence is equal to that of the kidney itself. The wax-tipped ureteric catheter should be of some assistance in confirming such a diagnosis where a calculus with a rough surface is present. It was not employed in this case because it was erroneously supposed that the cyst was the cause of the colic. Further, the patient should be advised to undergo an exploratory operation before the kidney becomes too disorganized to be worth preserving.

3. As regards the relations of the stone to the cyst, no connexion of any kind could be demonstrated.

4. Doubtful renal swellings should always be explored, owing to the impossibility of exact diagnosis.

5. Renal tumours can reach a considerable size—for instance, that of an orange—without being palpable in a well-covered patient, and further examinations such as radiography, pyelography, etc., should never be omitted when upper urinary symptoms are discovered.

6. Positive evidence should always be obtained of the presence and function of the opposite kidney in case nephrectomy has to be performed at the time of operation.

TWO CASES OF ACUTE SYPHILITIC APPENDICITIS.

BY

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PENYGOES.

(With Special Plate.)

THE increase in visceral syphilis is one of the features of medicine in the present century, but up to now not many cases of acute syphilitic appendicitis have been reported. In searching for such records we have had the able and generous help of the librarian of the British Medical Association, but have succeeded in finding two only—those reported by Pasqualis (D. A.).¹

In Royster's exhaustive monograph on appendicitis (Appleton, 1927) there is reference to pseudo-appendix associated with secondary syphilis. This condition is classed by Condamin and Voron (ibid.) with the form of intestinal neuralgia which Fournier had called syphilitic typhosis.

The two cases about to be described, however, are true acute inflammations.

CASE I.

A woman, aged 19, felt well until she had a miscarriage in the fifth month on the floor of a farm kitchen. During the following week she developed lower abdominal pain and tenderness with pyrexia.

On admission to hospital she did not look very ill; temperature 100°, pulse 120, respirations 26. The throat was red and covered

with loose mucus, but not painful. The abdomen was distended and tender all over, the maximum signs being in the right iliac fossa. No mass was palpable per vaginam, and only moderate tenderness.

In view of the possibility of infection following the miscarriage, and the condition of the throat, expectant treatment was given.

Her condition remained much the same for seven days, except that localization became more definite in the right iliac fossa. Laparotomy now showed: (1) general redness of the whole intestinal tract; (2) copious sero-sanguineous fluid; (3) patches of gelatinous exudate on the bowel and on the surface of the leaves

of the mesentery—evident precursors of mother-of-pearl plaques; (4) an enlarged and acutely inflamed appendix, which was removed.

Operation was followed by prompt clinical recovery, and the patient left hospital on the twelfth day after operation, the throat being normal. The Wassermann reaction was positive.

The appendix was submitted to Dr. W. H. Grace of Chester, to whom we are indebted for the report printed at the end of this communication. The features are well shown in the accompanying photomicrograph.

CASE II.

A woman, aged 26, complained of the sudden onset of right-sided abdominal pain with pyrexia. She was admitted to hospital the following day with a provisional diagnosis of acute appendicitis.

On admission the temperature was 100°, pulse 92, respirations 20. She was pale, but did not look very ill. The tongue was evenly covered with white mucous exudate. The abdomen was distended but not tense; it was tender all over, but moved with respiration. The maximum tenderness was quite definitely in the right iliac region. Nothing was found per vaginam.

The treatment was expectant; the tongue improved a little with mouthwashes.

The condition remained stationary, and on the fourth day of the illness laparotomy showed: (1) intestines peppered all over with small punctate and star-shaped haemorrhages; (2) a small amount of free serous fluid; (3) a large appendix, acutely inflamed and covered with plastic lymph.

On opening the appendix the mucous membrane was found to be of a uniform pale pink with no evident ulceration. The

thickening was clearly due to infiltration of the subperitoneal and submucous layers.

Recovery was uneventful, and the patient was discharged on the twelfth day. The tongue became clear the day following the first injection. The Wassermann reaction was positive.

The two cases had the following corresponding features.

CASE I.

Wassermann reaction +.
Specific throat.
Denied infection, but was unmarried at the time of the miscarriage.
One of 10 healthy children, and no miscarriage in the mother.
Mother's W.R. ++. Sister's W.R. +. (No opportunity for examining other members.)
No vomiting throughout the illness.
Macroscopically acute appendix with unbroken mucous membrane.

CASE II.

Wassermann reaction +.
Mucous patches on tongue.
Denied infection, but had an illegitimate child seven years previously.
One of 5 healthy children and no miscarriage.
One brother has definite facies of congenital syphilitic.
No vomiting.
Macroscopically acute appendix with unbroken mucous membrane.

Dr. Grace's Report.

CASE I.—Subperitoneal layer thickened and packed with lymphocytes. Number of lymphatics also full of lymphocytes. Muscular layer normal. Submucosa enlarged, with several small vessels packed with lymphocytes. Histological character consistent with diagnosis of syphilitic infection.

CASE II.—Chronic inflammation scattered throughout submucosa and underlying layers.* There is a predominance of lymphocytic infiltration, and the findings support a diagnosis of syphilis, but further than this it is not possible to go.

There was no evidence of tubercle in either specimen. Efforts to show up the spirochaete by Levaditi and other silver methods were unsuccessful, but, according to Warthin,² this is frequently the case in undoubted syphilis.

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¹ *Semana Med.*, 1929, i, 301. ² *British Medical Journal*, August 10th, 1929.

ATELECTATIC BRONCHIECTASIS.

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(With Special Plate.)

PERHAPS it is true to say that in no branch of medicine has radiology been more useful as a diagnostic aid than in disease of the chest; nevertheless, though the skiagram may show a condition which is definitely abnormal, yet the abnormality present is not diagnostic of the underlying pathological lesion; and, in order to ascertain the nature of the abnormal shadow, the aid of clinical medicine and pathology must be sought.

Such a radiological abnormality is a triangular shadow which is seen at the base of the lung. The shadow is a rectangular triangle, one side of which rests on the diaphragm, the other along the mediastinum; the hypotenuse runs from the mediastinum to the diaphragm. This shadow may appear on either side of the mediastinum, and when it occurs on the left it may lie within the cardiac shadow, and thus tends to be obscured and may be unrecognized at first.

In 1911 Dieulafoy¹ described the clinical findings in cases of mediastinal effusions; not long afterwards the radiological appearance of this condition was reported as being a shadow similar to the triangular shadow described above. The following case illustrates this.

H. W., aged 11 years. Four weeks before admission to hospital the patient had felt "off colour"; slight cough was present, with occasional traces of sputum. Physical examination on admission showed impaired percussion note and absent air entry at the left base behind. Temperature 99.8° on admission. The skiagram showed a triangular shadow behind the heart shadow (see Fig. 1). After a few days in hospital the temperature fell and the patient felt quite well; during the four ensuing weeks the physical signs gradually disappeared. A second skiagram showed that the shadow had gone, and that lipiodol could not demonstrate the presence of any bronchiectasis (see Fig. 2).

One brother of the patient had recently died of pulmonary tuberculosis, and another brother was suspected of the disease. The effusion was probably tuberculous in origin. Wallgreen² has described a similar case in which diagnosis was confirmed by exploratory puncture.

Recently the occurrence of massive atelectases of the lung has attracted considerable attention, from both the clinical and radiological sides, particularly the massive atelectases occurring as a post-operative complication, or as a result of haemoptysis; but massive atelectasis may occur in other pulmonary conditions—for example, trauma to the chest wall, pneumonia, and pleurisy. The atelectatic lobe, or part of the lobe, gives a dense shadow on the

skiagram, and the mediastinal shadow is displaced towards the side of the lesion. The shadow of the atelectatic lobe may be similar to the triangular shadow now under discussion.

D. S., aged 8 years, came to hospital complaining of a cough which had been present for some time, but which recently had become worse. Physical signs revealed an area of dullness and bronchial breathing at the right base behind. The heart was displaced slightly towards the lesion. The skiagram shows the triangular shadow at the right base with the cardiac shadow drawn towards it. In view of the past history of pneumonia the diagnosis of bronchiectasis was made, and the patient was sent away to a convalescent home. On return the physical signs had disappeared, and lipiodol injection of the lungs showed no bronchiectasis; the shadow had gone from the skiagram and the heart had returned to its normal position.

In the following series of cases the skiagrams of the patients' chest showed the triangular shadow. In their histories these patients admitted to the raising of much sputum, or dated their cough from their recovery from pneumonia; which facts suggest the possibility of a bronchiectasis; the lung was therefore injected with lipiodol, and bronchiectasis was demonstrated within the shadow.

W. A., female, aged 17 years. Had pertussis when she was 4 years old; since then bronchitis, and during the last four years repeated haemoptysis. Patient had been notified as suffering from pulmonary tuberculosis. Physical signs: dullness and added sounds at left base. A skiagram showed a triangular shadow behind the heart (see Fig. 3), and lipiodol injection demonstrated bronchiectasis within the shadow.

B. P., aged 11 years, complained of cough which had been present for "years." The amount of sputum raised varied from 1 to 2 ounces. There was a history of patient having had pneumonia at 3, 5, and 10 years of age. Physical signs at left base; dullness, bronchial breathing, and rales. A skiagram showed a triangular shadow behind the cardiac shadow, and lipiodol injection demonstrated bronchiectasis in this shadow.

F. R., aged 14, had suffered from cough for "years." There was very little sputum. Past history of measles. Physical signs were present at the left base, and the fingers showed slight clubbing. A skiagram showed a triangular shadow behind the heart (see Fig. 4); lipiodol demonstrated bronchiectasis within the shadow.

E. S., aged 9 years, complained of cough which had been present since the last attack of pneumonia two years previously. Patient had had pneumonia three times. The sputum raised was offensive and varied from 2 to 3 ounces daily. Physical signs at right base; behind dullness and bronchial breathing, added sounds. Fingers clubbed. A skiagram showed the triangular shadow at the right base. Repeated attempts at lipiodol injection were unsuccessful (see Fig. 5). The facts that the amount of sputum was large and that the physical signs and skiagram remained unchanged for two years leave little doubt that the condition was one of bronchiectasis.

In 1926 Singer and Graham³ described a case the skiagram of which presented the triangular shadow, and in which bronchiectasis was demonstrated by lipiodol. At operation an atelectatic lung with bronchiectasis was found to correspond to the shadow. Rist, Frocine, and Jacob⁴ collected a series of seven such cases, which at first they suspected as being purulent mediastinal effusion, but the lipiodol injection showed the conditions to be bronchiectatic. Wallgreen reported five such cases, and discussed the pathology. He believes that the primary condition in these cases is an atelectasis and bronchiectasis.

It is a matter for speculation how much influence local areas of collapse exert in the etiology of bronchiectasis generally, though it is probable that it may have some bearing in relation to the disease occurring after chronic pneumonic conditions. The clearing up of a collapsed area of lung is dependent on the free mobility of the chest and diaphragm, and occurs least readily in those parts where there is a deficiency of movement.

This condition obtains particularly in that portion of the lung under discussion. Lying as it does in the recess formed by the spine and ribs and the angle of the diaphragm, it is shielded from the more forcible respiratory movements, and is a spot where one would expect to find a residual atelectasis. In such manner we account for the comparative frequency of the condition described: we consider, from the number of cases we have met with, that

* The appearance at operation was anything but chronic.