

chest obliquely to join the cardiac dulness in front, so that almost the whole of the chest in front below the second rib cartilage was dull. The upper part of this was obviously due to the displacement upwards of the heart. Behind there was dulness on the left side of the chest as high as the angle of the scapula, bounded above by a curved line with its convexity upwards, descending towards the spine and towards the axillary region. It was noted that the upper limit of this dulness descended slightly with a deep inspiration. Over the dull area the vocal fremitus and resonance and breath sounds were absent. There were no other abnormal physical signs discovered in the chest or the abdomen. The liver appeared to be of normal size and there was no albuminuria. The spleen could not be made out. The blood examination showed slight anæmia but no leucocytosis. The temperature was normal.

It was obvious that we had to deal with a tumour below the left wing of the diaphragm which, unlike an enlarged spleen, exerted its chief pressure upwards. A subphrenic abscess seemed unlikely owing to the long duration, the absence of fever, and of any symptoms pointing to a previous perforation of the stomach, which is far the most common cause of subphrenic abscess on the left side. The possibility of the tumour being a pancreatic cyst was discussed, but these tumours do not, as a rule, move with respiration and they are situated more in the median line; the fæces also were normal in colour and consistency. A portion of the tumour was resonant, which is often the case in a pancreatic cyst owing to the stomach lying above it, but this was found at the operation to be due to the thin edge of the left lobe of the liver overlying the displaced stomach. Eventually by exclusion we arrived at a hydatid cyst as the most probable diagnosis.

Mr. Bilton Pollard arranged to perform abdominal section and discovered a hydatid cyst situated in the posterior part of the left lobe of the liver, pushing the anterior part of that lobe forwards. He evacuated five pints of a brownish fluid which microscopically contained red blood corpuscles, granular cells, crystals of cholesterin and débris. No hooklets were seen but a portion of the cyst wall showed the structure characteristic of hydatid. The cyst wall was stitched to the wall of the abdomen and drained. The patient's further progress was uneventful; she was out of bed in a month after the operation, though the fistula continued to discharge for some weeks longer. She finally recovered perfect health and all signs of the tumour have now disappeared.

At the operation it was seen that the stomach was displaced downwards and towards the mid-line and lay beneath the displaced left lobe of the liver, thus producing resonance over the right limit of the tumour.

It would appear that in this patient the ovum having perforated the stomach wall and the capsule of the liver developed in the nearest part of the liver which it reached and was not carried away in the portal circulation as usually is the case when it develops in the right lobe of the liver. Such a condition appears to happen in more than a solitary instance, for shortly after seeing the above case I saw at the necropsy of a patient who died from heart disease in the London Temperance Hospital a hydatid cyst of about the size of an orange in almost exactly the same situation, being adherent on the one hand to the posterior wall of the stomach near its cardiac end and also to the posterior part of the left lobe of the liver. This cyst was evidently in active growth and contained the usual hydatid contents, including hooklets, and if the patient had lived till it had grown to a larger size it would doubtless have produced similar symptoms and signs to those which I have mentioned.

Wimpole-street, W.

## THE PROGNOSTIC VALUE OF THE DIAZO-REACTION IN ENTERIC FEVER.

By J. D. ROLLESTON, M.A., M.D. OXON.,

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THE prognostic value of the diazo-reaction in enteric fever was originally described by Ehrlich in 1882<sup>1</sup> and has subsequently been confirmed by several German, French,

and American observers,<sup>2</sup> but hitherto has received little recognition in this country. The greater certainty attaching to Widal's test from a diagnostic standpoint has tended to throw Ehrlich's reaction into the shade, the use of the latter in prognosis being disregarded. The present paper, which is based on observations made on 65 cases of enteric fever in which the diazo-reaction was employed, offers confirmatory evidence of its prognostic value. A positive reaction in enteric fever is first obtained about the fourth day of the disease and tends to disappear by the end of the second or in the course of the third week. Its persistence beyond that period only occurs in severe cases and in spite of a fall of the temperature indicates that the infectious process is still active and that a recrudescence or relapse is imminent.

The following shows the diazo-reaction in 65 cases of enteric fever admitted at various stages of the disease. Cases admitted in the first week: 9 positive, none negative; second week, 24 positive, 9 negative; third week, 9 positive, 8 negative; fourth week, 2 positive, 2 negative; and fifth week, 1 positive, 1 negative. In 27 of these cases in which the test was employed throughout the disease the diazo-reaction became finally negative at the following dates: first week, 0; second week, 6; third week, 12; fourth week, 3; fifth week, 4; sixth week, 1; and seventh week, 1.

My own experience coincides with that of Oppenheim and Loeper who hold in opposition to Rivier<sup>3</sup> that an intense reaction is by no means the appanage of severe forms of the disease as it is found in the immense majority of cases in which the urine is examined during the first fortnight. It is only the persistence of a positive reaction that characterises a severe attack. Daily examination of the urine shows that the commencement of lysis occurs either simultaneously with the disappearance of a positive reaction or succeeds it by an interval of varying duration.<sup>4</sup> Thus out of 27 cases in 22 these two events occurred in the same week, in four cases lysis began in the week following, and in one instance there was an interval of 12 days between the two. Before the reaction disappears entirely there is usually a gradual diminution in its intensity, the successive grades being designated by Ehrlich R++, R+, R-, R--, which correspond with shades of colour varying from a deep purple or carmine to a pale yellow. Not infrequently before the reaction becomes finally negative it may be occasionally positive. Generally speaking, so exceptional is it for the disappearance of the reaction not to be followed at a short interval by a decided fall in the temperature that a persistent pyrexia with a negative reaction indicates a secondary infection or impermeability of the kidney to the colouring matter, the latter, according to Ehrlich, constituting a grave sign. Thus, in seven of my cases in which aggravation of the general condition occurred after disappearance of the reaction three died from toxæmia, two from hæmorrhage, one from perforative peritonitis, and one from lobar pneumonia. Knowledge of the duration of the diazo-reaction is useful as a means of checking the history, which is often notoriously misleading, and in conjunction with the other symptoms helps one to arrive at a more accurate estimate of the length of the illness. As a rule there is a tendency to under-estimate the duration of the illness. A decidedly negative reaction (R--) in an undoubted case of enteric fever indicates that the patient has in all probability been ill for at least 14 days. A positive reaction, on the other hand, in the absence of a relapse or recrudescence shows that the illness has lasted little more than a fortnight at the most.

The reappearance of the reaction after a period in which it has been negative indicates the imminence of a recrudescence of the disease if the temperature is not already settled or of a relapse if apyrexia has been established. On the other hand, a persistently negative reaction with a rise of temperature excludes the possibility of recrudescence or relapse. In certain cases of complications due to the specific bacillus the reaction hitherto negative may become positive again. Thus Lainois and Loeper record its presence in a case of typhoidal orchitis occurring in convalescence. It is, therefore, advisable to employ the test at frequent

<sup>2</sup> Escherich: Deutsche Medicinische Wochenschrift, No. 7, 1883. Krokiewicz: Wiener Klinische Wochenschrift, No. 29, 1898. Michaelis: Deutsche Medicinische Wochenschrift, 1899. Chantemesse: Traité de Médecine par Charcot, Bouchard, and Brissaud, art. Fièvre typhoïde, 1899. Brannan: Twentieth Century Practice of Medicine, 1899. Oppenheim et Loeper: Gazette des Hôpitaux, May 25th, 1901.

<sup>3</sup> Thèse de Paris, 1898.

<sup>4</sup> Chantemesse (loc. cit.) says that the disappearance of the reaction may follow the fall of the temperature.

<sup>1</sup> Ehrlich: Zeitschrift für Klinische Medizin, 1882, Band v., S. 285.

intervals for at least one month after the evening temperature has reached normal and not only to use the test throughout the febrile period. It is interesting to note that in diseases in which the reaction is rarely found—e.g., in tuberculosis, pneumonia, and diphtheria—a positive result is of still graver omen than in enteric fever (Ehrlich). In measles in which the reaction is as constant as in typhoid fever no prognostic value attaches to its presence or persistence.

*Summary.*—(1) In all but severe attacks the diazo-reaction tends to disappear in the course of the second or third week, this disappearance shortly preceding, or coinciding with, the commencement of lysis; (2) its reappearance during or after the completion of lysis is a warning of recrudescence or relapse, or of complications directly due to the specific bacillus; (3) a sudden disappearance of the reaction associated with a deterioration of the general condition is of bad omen; and (4) the character of the reaction is a useful check to the history.

Tooting.

## Clinical Notes:

### MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

#### NON-TRAUMATIC CEREBRAL HÆMORRHAGE IN A CHILD, AGED TEN YEARS.

BY HUGH TAYLOR, M.A. CANTAB., M.A., M.D. DUB.

THE following brief note of an extensive cerebral hæmorrhage without any traumatic origin occurring at such an early age is, I have ventured to think, worth recording.

About 10 o'clock on the evening of Dec. 31st, 1904, a little girl, aged ten years, who had "never been really ill in her life" and who had been playing about all day with her companions apparently quite in her usual health, suddenly put her hand to her head exclaiming "Oh, my head!" gave a cry, fell down, and was in a minute or so very sick. The parents were at first inclined to ascribe the attack to a Christmas surfeit but on raising her into a chair they discovered that "she had lost the use of her limbs." I saw her about an hour afterwards. She had been very sick and was still inclined to retch. She was reclining in an arm-chair in a semi-comatose condition, her pupils were dilated and fixed, her temperature was 97·8° F., and her pulse was uncountable. The mouth was drawn over to the right side of the face, the head was inclined to the right shoulder, and her left leg was quite paralysed, but the left arm, so far as I could make out in a somewhat hasty examination in unfavourable circumstances—an ill-lighted crowded hut—was not so much implicated. About 4 A.M. on Jan. 1st she tried to "turn over" in bed, made an abortive attempt at vomiting, and quietly died. The father is a strongly built "ganger"; the mother is a weakly anæmic rheumatic woman, has a large family, and one sister suffers from constantly recurring tonsillitis.

A necropsy made on Jan. 4th disclosed a hæmorrhage which, starting from some vessel in the corpus striatum or optic thalamus, had literally ploughed its way into the right lateral ventricle, the resulting clot completely filling the cavity.

Though the diagnosis was confirmed I am quite at a loss to account for the condition revealed. My colleague, who kindly assisted me at the necropsy, and myself do not profess to be expert pathologists but we could find absolutely nothing to account for the attack, all the other organs being, macroscopically at any rate, quite healthy.

London.

#### A CASE OF EXTRACTION OF A COIN FROM THE OESOPHAGUS.

BY JAMES LINTON BOGLE, M.D. EDIN.

IN connexion with the case of extraction of coins from the gullet published in THE LANCET of Dec. 10th, 1904, p. 1641, the following one may be of interest as occurring about the same time in my own household.

The patient was a boy, aged five years, who on Dec. 9th whilst playing with a 10-centesimi piece (being 1·2 inches in

diameter and much the same size as a penny) put it into his mouth and accidentally swallowed it. He complained of pain at the back of his throat and in the stomach and was repeatedly sick, vomiting the food last taken. There was no interference with breathing and he readily swallowed liquids. Nothing could be seen or felt on careful examination of the throat and gullet save some slight reddening of the fauces. He was held up by the feet and well shaken without result. The vomiting continued for 24 hours, when the gastric pain became less. He had regular action of the bowels and took liquids and semi-solid food without difficulty. On the 14th—i.e., five days afterwards—the coin had not been voided per rectum, there was still some irritation in the throat, the boy's voice was somewhat weak, and he still could not take solid food. He was therefore on that day taken to San Remo, where, through the kindness of one of my medical *confrères*, an excellent skiagram was taken by the x rays, showing very clearly the coin impacted in the gullet just above the sternal notch, being two-thirds above and one-third below the sternum. Under chloroform attempts were then made to remove it, either by bringing it up or pushing it downwards but unsuccessfully, mainly owing to the want of suitable instruments. As the x ray apparatus still showed clearly the shadow of the coin in the same position I telegraphed to Dr. J. A. Macdougall of Cannes, who kindly came next day to our assistance. Chloroform having again been administered a long flexible coin catcher was passed and at the first attempt this brought up the coin to the rima glottidis. There it was nearly lost again, falling forwards, but it was successfully removed by forceps. The coin had already much changed in appearance, being dark green and somewhat roughened at the edges. The little patient was sick for 24 hours but was in his usual health in three or four days' time. The feature of the case was the smallness of the disturbance caused by the presence of this large coin in the gullet. The boy easily swallowed porridge, soft bread, and ordinary puddings with fluids and the breathing was quite unaffected from the first.

Bordighera, North Italy.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

#### SOUTH WIMBLEDON AND MERTON COTTAGE HOSPITAL.

A CASE OF RUPTURE OF THE PANCREAS; OPERATION;  
RECOVERY.

(Under the care of Dr. A. H. GERRARD, Dr. MARTIN RANDALL, and Dr. PATTISON ARMSTRONG.)

FOR the notes of the case we are indebted to Dr. Randall.

The patient was a man, aged 42 years, a carman. On May 13th, 1904, at 9 A.M., he was walking backwards, leading a pair of horses in a loaded van. He went too far and got jammed between his own van and a stationary laden wagon. The pole of his van hit him in the epigastrium. He had violent pain, became faint and collapsed, and vomited. There was no history of blood in the vomit. He was taken to hospital and seen at 10 A.M. by Dr. Gerrard who found him collapsed, ashen in colour, with a weak, small pulse of 90, a temperature of 95° F., and in great pain. He at once ordered stimulants, warmth, and a hypodermic injection of half a grain of morphine. It was ascertained that the patient had had breakfast at 8 A.M. and had passed urine at 8.30. Dr. Randall saw the patient with Dr. Gerrard at 11.30. He was still collapsed and in pain. Midway between the ensiform process and the umbilicus was a bruise nearly two inches in diameter and very tender to the touch. The skin was not broken. The abdomen moved but was very tender, especially above the navel. Liver dulness was normal. There was marked dulness in the right flank. From the gravity of the collapse, the site of injury, and the dulness it was concluded that the patient had some serious