with loss of appetite, aching pains all over the body, headache, sore throat, difficulty of swallowing, and sickness without vomiting. A scarlet rash was observed by the patient on the second day of his illness; and, on admission, an abundant eruption was present on the trunk and limbs. The throat was slightly affected, but there was difficulty of swallowing. On the day of admission, the temperature was 101.8 deg. in the axilla. After admission, the patient was exceedingly restless, delirious at night, and only half conscious. The eruption is noted as still present on the abdomen on October 4th, and on that day the temperature was 103.4. He died on October 5th, or five days after admission, being the tenth day of the disease.

A *post mortem* examination was made about twenty-seven hours after death. Both liver and spleen were considerably enlarged, the liver weighing close on five pounds, and the spleen twenty-one ounces. The mesenteric glands were also enlarged, and red on section, and there was redness of Peyer's patches and enlargement of the solitary follicles in the large intestine. Both kidneys were much enlarged, weighing together twenty-two ounces. They presented to the naked eye very much the appearances of the large white kidney, the cortical substance being very pale and much increased in thickness.

The microscopic characters in this case were quite unequivocal. The enlargement and paleness of the kidney were due to an infiltration of the cortical substance in almost every part by multitudinous round cells. These were packed in between the tubules, separating them, but not to any great extent destroying their epithelium. The cells were about the size of white blood-corpuscles, and had a plump full appearance. A thin transverse section shows the appearance described exceedingly well, especially where the epithelium has dropped out; and such is the number of the round cells, that the section has a very close resemblance to one in my possession, taken from a leucæmic nodule in the kidney, there being a similar close infiltration of the interstices between the tubules. Of course there is the essential difference, that, in the present case, the condition is generally diffused throughout the cortex. The epithelium of the renal tubules was very little changed, perhaps slightly enlarged and granular. The section, it may be remarked, very closely resembles a wood-cut in Rindfleisch's *Pathological Histology* (New Sydenham Society translation, fig. 159, vol. ii, p. 162).

We have here, therefore, an acute interstitial nephritis, generally diffused through both kidneys, occurring in a case of scarlet fever, which proved fatal on the tenth day. I am not aware that any similar case has hitherto been recorded, but, of itself, it certainly demonstrates the existence of an acute interstitial inflammation of the kidneys.

ON THE DIAGNOSTIC VALUE OF VOMITING AND PAIN IN HEPATIC SUPPURATION.

By J. FAYRER, C.S.I., M.D., F.R.C.P.

DR. MACLEAN, in an interesting communication to the *BRITISH MEDICAL JOURNAL* of August 1st, 1874, on the subject of the Diagnostic Value of Uncontrollable Vomiting in certain Forms of Hepatic Abscess, alludes to the untrustworthiness of "the absence of pain as a sign of hepatic abscess", and illustrates this by the case of an officer who had served in the recent expedition to the Gold Coast.

The insidious mode in which the liver will pass into a state of suppuration is so frequently observed, not only in India, but after leaving the country, that the justice of Dr. Maclean's remarks would be confirmed by most medical officers of even a few years' experience in the East. But I would add that, in certain cases of liver-abscess, there is not only absence of pain, but sometimes also of vomiting, and of other symptoms, such as cough and pain in the shoulder, that are so frequently present in this disease. For, as pain, when it does occur, is chiefly due to implication of the capsule of the liver in the inflammatory action, and nausea or vomiting either to direct pressure by the swollen liver or to irritation of the vagus, so, when the peritoneal covering is not involved, and the pressure, owing to the small size of the abscess, is not great, these symptoms may be wanting. Nay, more: the liver may suppurate without any more marked symptom than such as may be seen in ordinary malarious poisoning, in which the general deterioration of health is expressed by feverish attacks attended by some hepatic congestion; and the first evidence of the formation of matter may be the sudden and unexpected evacuation, through the stomach, bowels, or lung, of the contents of the abscess; or perhaps sudden collapse and speedy death from rupture into the peritoneal cavity. In such cases, before the above catastrophe happens, diagnosis is most uncertain, and often attended with great difficulty, from the absence of well marked diagnostic symptoms. In others, again, where all the most character-

istic indications have been present, including rigors or chills, fevers, sweats, high temperature, pain, and vomiting, they occasionally pass away, and health is restored, without any proof that pus has really formed. It is to be borne in mind that an abscess may have undergone absorption, or that it may have opened into the intestine, and the contents have drained away so gradually, in combination with the fluid excretions of diarrhoea, as to have escaped notice. Therefore, although the diagnosis of hepatic abscess in many cases is easy enough, it is certain that in some it is very difficult, and may escape detection even by the most careful observer. Probably in no case does the knowledge that results from long experience prove of more service than in this.

The following case illustrates the value of Dr. Maclean's remarks on the absence of pain. It also shows that even vomiting and other symptoms, generally regarded as significant of its presence, may also be absent when liver-abscess has occurred.

A young Englishman, aged about 21, of fair complexion, healthy constitution, and of active and vigorous frame, who had been two or three years in India, and occupied in a merchant's office, complained of failing health, loss of appetite, feverish attacks, tenderness and fulness in the hepatic region, inability to rest at night, a general sense of *malaise*, and disordered bowels. He looked anæmic, and the conjunctivæ were tinged with bile. His tongue was coated, and his pulse quicker than natural. The temperature was not taken. There had been no rigors, though probably he may have had chills. Neither vomiting, severe pain, nor cough, had occurred. He was continuing to attend office, and up to that time, I believe, had not been absent from his work. On examining the hepatic region, I found that there was considerable enlargement of the liver, but it was unaccompanied by any marked tenderness. I prescribed such remedies as appeared necessary, and recommended change to sea or to the Sand-heads.

I did not see him again for some time; he had gone to reside in the vicinity, out of Calcutta. When I saw him, some weeks later, he was looking thin and pale, but in good spirits. He was at his work as usual, and, I believe, had not been absent more than a day or two. He said he felt weak, but was rapidly regaining strength. He informed me that one day, after dinner with some friends, one of them, in play, accidentally gave him a blow in the region of the liver. This produced immediate symptoms of collapse, attended by coughing and vomiting of a large quantity of purulent matter. The blow had evidently ruptured a liver-abscess which opened into the stomach, and was thus evacuated. On recovery from the shock and depression caused by this accident, he soon began to regain strength and to improve in health. He returned within two or three days to his duty, and ultimately regained his former health, and is, I believe, still alive and well. The absence of any pulmonary symptom shows that the abscess did not open into the lung.

The freedom from any marked symptom in this case illustrates the insidious mode in which liver-abscess will sometimes form, how difficult the diagnosis may be, and how cautious one should be in framing it.

A CASE OF INTERMITTING HYDRONEPHROSIS.*

By THOMAS COLE, M.D., M.R.C.P., Physician to the Royal United Hospital, Bath.

ALTHOUGH the subject of my paper has not yet succumbed to his disease—and I hope the day is far distant when he will render his case pathologically complete—yet I trust that the meeting will not be uninterested in the notes I have ventured to bring under consideration tonight.

Mr. S., aged 23, of medium height, well-made but spare, living in a healthy village about twelve miles from Bath, consulted me in March, 1873. He had enjoyed fair health up to 1870, when, one day, a pain seized him in the left lumbar region, accompanied by sickness. It lasted a few hours, and then left him. After a month's interval it came again, and molested him, after the second attack, at intervals of one or two months. Latterly the intervals had been much shortened, being about a fortnight. The attacks lasted from a few hours to several days. The pain never affected the back, nor did it extend down the legs, testicle, or penis. He expectorated a large quantity of slimy matter during the paroxysms, but none during the intervals. The appetite, always good when he was free, became very bad. He was never jaundiced. The bowels were generally confined. He never noticed anything wrong with the urine. The tongue was red, with raised papillæ, and slightly furred. On physical examination not the slightest trace of disease could be discovered. Urine passed at the time of his visit was found free from any abnormality, except a super-

* Read before the Bath and Bristol Branch.

abundance of octahedral crystals of oxalate of lime. The pulse was regular and feeble. I suggested the desirability of witnessing an attack, and accordingly saw him during two, at his home.

The diagnosis I then formed has been corroborated during the last three months, a visit to Bath having given me the opportunity of narrowly watching my patient in three attacks. During the year he has been under my care, he has been seized at intervals varying from a week to seven weeks. The intervals, on an average, have certainly been longer than they were before that time. He has always led a quiet, sedentary life, and there appear to have been no special exciting causes inducing the paroxysms. Sometimes they came after a meal, or a walk, and once a railway journey was thought to have a similarly injurious influence. The patient, before I saw him, always felt a fulness on the left side of the abdomen when seized, but had not the least idea of any tumour. Now, however, since he has been taught to minutely observe his condition, he detects a fulness of the left side as the first in the series of events.

The natural history of a seizure is as follows. Fulness below the left costal margin is, as I said before, the first symptom. It is shortly followed by pain, sharp at first, afterwards becoming dull and aching, over the left front of the abdomen. There is none in the flank. Vomiting quickly follows, the ordinary contents of the stomach being ejected.

This may occur twice or three times, at shorter or longer intervals. The temperature remains normal; the pulse and respirations quiet. The tongue becomes somewhat furred, the appetite goes, and soon the patient begins to expectorate a great quantity of liquid, sometimes tinged with blood, more often not. It seems a mixture of saliva and gastric mucus. I have known more than a pint and a half during an attack. The pain subsides in from twelve to thirty-six hours, and there is no more uneasiness. Very shortly after an attack commences, a large tumour is detected, reaching from the left costal margin to the level of the umbilicus, or even below it; and from the median line to about an inch or inch and a half from the extreme left edge of the abdomen. It can readily be felt in the left flank. It distinctly pushes the belly of the left rectus muscle forward, and alters the contour of the front surface of the abdomen. The fingers can be inserted by pressure between the upper edge of the mass, and the ribs. There is generally obscure resonance in front of the swelling—no doubt from the descending colon. A line of resonance separates the upper part of the tumour from the costal margin. It has a distinct elastic feel to the touch; fluctuation is not, however, satisfactorily made out. It is easily moved about between the fingers of the two hands, and is seen and felt to move forwards when the hand is pressed into the flank against it.

It descends on inspiration one or two inches, resuming its position on expiration. It is tender at first, but, after the first day or two, handling is borne without inconvenience. The swelling varies a little in size, but, as a rule, resembles in size and shape a large ostrich egg, one end pointing to a spot about an inch and a half to the left of the umbilicus, and just above it, the other to the anterior extremities of the floating ribs. The stomach resonance is increased upwards. I think I can always satisfactorily make out the spleen in its proper place, by percussion. The bowels are generally confined during the attack. This may partly be accounted for by the opiates given at the onset. The evacuations, when they occur, are perfectly natural. The urine used always to remain apparently unaltered, but was rather scanty sometimes. During the three attacks in Bath, it became scanty and loaded with urates; the specific gravity being about 1025. At my request, the patient made a series of observations running through an attack, of the quantity of urine. The result showed that, from November the 5th to December the 1st, 1873, when he was free, the amount varied daily from $1\frac{1}{2}$ to 3 pints. On December 1st, when a paroxysm began, it was $1\frac{3}{4}$ pints; on the 2nd, $1\frac{1}{2}$ pints; on the 3rd, 4th, and 5th, $\frac{3}{4}$ pint; from the 6th to the 14th, a pint; and on the 15th, when the swelling passed away, it was $1\frac{1}{2}$ pints. Thus, during the attack, the urine was evidently diminished in quantity. This was the longest attack he ever experienced—lasting a fortnight. Coincidentally with the disappearance of the swelling, he felt a frequent desire to pass urine—three times in an hour or so. This never was the case under ordinary circumstances. After the first two or three days the patient feels quite well, and his appetite returns; but he does not, of course, get up until the tumour has disappeared. It goes away rapidly, as a rule. For instance, the last time, he went to sleep at 11 P.M., the swelling being as large as ever; and at 4 A.M. he awoke, and found his enemy had fled; and at 10 A.M. I could not detect the least evidence of its existence. In the intervals the urine had always contained a superabundance of oxalate of lime—no pus, blood, albumen, nor casts. During the attacks the oxalates were much diminished, and nothing abnormal could be seen with the microscope. But, in the urine passed while the tumour was diminishing, and immediately after it had entirely dis-

appeared, the oxalates were again superabundant, and also aggregated into microscopic calculi. A good many pus-cells were seen in each field, and here and there a blood-cell, with some large nucleated cells in various stages of degeneration, and occasional casts from the straight renal tubes. There was, of course, a slight trace of albumen. After a day or two the urine resumed its normal state, and not a blood nor pus-cell could be seen after repeated microscopic examinations; and the urine, after standing some hours, showed only the very faintest deposit.

Numerous medical men had been consulted previously to myself, but only one discovered anything abnormal, and he decided that the spleen was enlarged. The physical characters of the tumour did not suggest to me the idea of any such condition, but seemed decidedly to point to the left kidney, and the urinary changes fully confirmed that opinion. What is the cause of this intermitting hydronephrosis? At first I was much inclined to believe there must be some congenital malformation of the ureter, from the total absence of symptoms of renal calculus. I know it may be said that a congenital state should have been attended with symptoms from a very early period. But Dr. W. Roberts relates a case in which hydronephrotic attacks did not commence till quite as late as my patient's did. Of course, I am well aware that renal calculus does not necessarily produce any symptoms at all. And closer study convinces me that the pelvis of the left kidney contains a calculus, probably of oxalate of lime, which from time to time is dislodged from its usual position, and, falling over the entrance of the ureter, blocks the organ, sets up, by spasm and irritation, the pain, and causes the temporary hydronephrosis. The vomiting may be partly reflex, partly due to the pressure of the mass on the cardiac end of the stomach. The fluid so profusely discharged by the mouth may partly be due to gastric catarrh. The pus and blood in the urine, after an attack, would be produced by irritation of the mucous membrane of the pelvis of the kidney. A few doses of liquor opii sedativus, with or without effervescing saline draughts, have always effectually relieved the pain and vomiting. I have not found altering the position of the patient of any use in dislodging the calculus. The treatment in the intervals, certainly with great general improvement, has been directed against the so-called oxalic acid diathesis. I do not myself see any other satisfactory solution, but I should be grateful for any remarks which would throw more light on this, to me, very interesting case.

TWO CASES OF DIASTASIS IN ADOLESCENTS.

By CLEMENT DUKES, M.B., B.S. Lond.,
Medical Officer to Rugby School.

CASE I.—Mr. X., aged 18, on December 10th, 1872, while playing in the close at the school, was pushed on the outer side of his right leg while his legs were extended laterally from the median line, when he suddenly felt acute pain above the knee, and fell down; and the limb was powerless.

On examination, the knee-joint was not swollen. No distortion was perceptible to the eye. The leg lay powerless on the bed. The foot was neither twisted nor everted. The limb was slightly shortened on measurement. On taking hold of the limb, no crepitus could be elicited, nor any movement, though pain was felt, whichever way it was moved. On slightly flexing the leg, a rapid movement in the limb was felt, like two smooth surfaces passing quickly one over the other. The situation of this rub was found by a slight depression being felt about two inches above the knee; and the lower bone could be felt slightly prominent posteriorly on the upper part of the popliteal space, being rotated a little backwards by the gastrocnemius. The diagnosis was made of diastasis, or separation of the condyles from the shaft of the femur. This epiphysis is the last to unite—viz., at twenty years.

Treatment.—The difficulty was to keep the surfaces of the bone accurately together, owing to their slippery nature.

1. A suspending thigh-splint with pulleys was first tried, but without success.

2. The straight "long outside" splint, with the perineal extenders, was then applied with better success, but not complete.

3. To the "long outside" was added a small straight back-splint with a pad sewn on it, to keep the lower end from slipping backwards. The perineal band was moved, and extension kept up by a weight passing over pulley at foot of bed.

By this means, a firm union was obtained at the end of six weeks; the limb was of full length; and he was allowed to get up.

On examining the limb, no one could have told that there had been a disunion; for there was not the slightest thickening at the seat of injury; no provisional callus being thrown out as in fracture, union being effected in the cartilage. Fearing lest this should not be strong enough