an inch and a half in extent at the back of the head, a little to the left of the middle line, and just below the suture, between the occipital and the left parietal bone. The wound, which had been inflicted with a cabman's metal badge, led directly down to the bone; this was fissured, and the edges of the bony fissure were distinctly felt to have been driven in. The man was perfectly sensible, but the right pupil was dilated, the corresponding eyelid drooped, and partial paralysis of motion in the right arm was well marked. The treatment prescribed was absolute rest in bed, low diet, close attention to the bowels, dry dressing of the wound, and application of ice-bag to the head. At the end of nine days, the wound had healed, and the symptoms of compression, after steady decrease, had completely disappeared. The patient was discharged on the 10th December, and resumed work six weeks after the accident. I saw him last week in perfect health. The depression in the skull is still quite perceptible, but the man has not lost an hour's work, and has shown no symptoms traceable to the injury.

On May 11th, John Curtis, aged 46, was admitted under me in our accident ward. He had been thrown out of a cart in rapid motion on to some stones. The accompanying woodcut, executed from a

photograph taken after complete recovery, will give an idea of the extensive nature of the injury. The greater part of the right half of the scalp was turned back and much periosteum stripped from the frontal and left parietal bones, in each of which was a fracture with depression: one fracture, immediately above the parietal ridge, was characteristically punctured and depressed—a circular piece of bone, about the size of a split pea, having been firmly driven in to the depth of one-eighth of an inch. The man was barely conscious, and could only give a very imperfect account of the accident. When I saw him at 11.10 P.M., about two hours after admission, the pulse was 76; respirations 22; temperature 99.8. After carefully cleansing the wound, its edges were brought into contact with eight points of silver suture; an oakum dressing and gently compressing bandage; a large ice-bag over all.

On the following day (May 12th), 9.30 A.M., pulse 84; respirations 22; temperature 101.2. 9 P.M. Pulse 108; respirations 28; temperature 103. At this visit, I noted numbness and impaired motor power of the left hand, with complaint of headache. Ice-bag to be persistently continued, and an aperient draught prescribed.

May 14th. Dressing changed; discharge considerable; wound looking very well; the lower half of it healing by the first intention. Pulse 80; respirations 20; temperature 101.2. Pain in head and numbness in hand gradually decreasing.

From this date, the progress to recovery was uninterrupted. The man was discharged June 21st, barely six weeks after the accident. He resumed his regular work as a carter in another fortnight, and has

ailed nothing since. When I last saw him (September 28th), he was in vigorous health. The hair hid the greater part of the wound, from which two splinters of bone were extracted about two months ago. The cicatrix throughout is pale and painless, the points where the sutures were inserted being scarcely perceptible.

From these two cases I would not pretend to deduce a rule of practice, though I think the treatment pursued in them deserving imitation under analogous circumstances. The cases tend to restrict the justifiable use of the trephine within still narrower limits than those defined in the lecture above quoted. How narrow those limits should be, how rarely the trephine should be applied to a broken skull, may be the subject of a subsequent communication.

NOTES ON OBSCURE CASES OF CALCULOUS DISEASE OF THE KIDNEY.

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THE immediate object of this communication is to direct attention to the more chronic symptoms of renal calculus, and to show how easily, in many cases, the true nature of the affection may be overlooked. I would speak first of cases in which the principal symptom consists in heavy and continued pain over the sacrum, while there may be no other discomfort of any kind beyond such as we find in connection with dyspepsia in no very aggravated form. The circulation is generally feeble, and the patient complains of languor and want of appetite. We are sometimes assisted in our diagnosis by the bladder becoming irritable; but this symptom is not always present in any marked degree, and other causes than the true one are sought in explanation of the case. These causes are numerous and well known to the profession; but the presence of a renal calculus would scarcely suggest itself in explanation of the symptoms, if no urinary trouble were recognised. The case, in fact, is not made out. There is, however, a test which is very valuable in these obscure cases; viz., the tincture of galls. This may be regarded as an indicator of the presence of the extractive matters of the blood, and, if it be added to urine containing these, we get an immediate light brown flocculent precipitate.* This shows us that we have some cause of irritation affecting the urinary canals, and we are thus directed to the appropriate treatment of our patient. If we have no indication by this test, we may then be sure that the sacral pain is due to other cause than the presence of a renal calculus; but, if we obtain the reaction, the probability is great that a calculus is present. I use the expression "the probability is great" because now and then, and especially in gouty persons, we meet with cases in which a highly acid urine acts as an irritant and causes an effusion of the extractive matters of the blood. In these gouty cases, the irritation is often sufficient to cause an effusion of serum into the renal tubes, and albumen appears for a time, making us anxious as to the probable production of the well known small gouty kidney. In most cases of renal calculus, however, we do not find albumen present unless blood be effused, in which case the character of the disease is at once manifest. It should always be borne in mind that the absence of albumen (should the practitioner happen to examine the urine) does not prove that the urine is free from all constituents of the blood. There is, again, a set of symptoms produced by renal calculus which it is not always easy to attribute to the proper cause. In these cases, the calculus is present in the right kidney, and the patient complains of pain extending over the body from the renal to the hepatic region. The practitioner cannot detect hepatic enlargement, but he notices that the patient is slightly jaundiced. There is dyspepsia, with gout and depression of spirits, the colon being much distended, and the pain over the hepatic region is at times especially severe. If, as often happens, there be no irritability of the bladder, or but little, and no hæmaturia, these cases are not easily diagnosed. Nausea is common, but rarely such vomiting as to lead to the belief that the stomach is sympathetically affected. The use of the tincture of galls will help us greatly in diagnosing these cases.

When a calculus exists in the kidney, we sometimes observe, among other symptoms, that the patient shows a tendency to rigor. This is accompanied with blueness of the nails. The rule is, that the patients do not pass into rigor, but what they experience is often expressed by saying that they feel a "creeping" all over them.

I once saw a remarkable case, however, in which well marked rigor

* I have given a full description of the action of this test, and of its value in practice, in the *Guy's Hospital Reports*. The test is added *guttatim*, when, if the extractives are present, an immediate precipitation occurs.

occurred daily. This patient had not a single urinary symptom. He had never been exposed to the action of miasmatic poison; there was no evidence of suppurative action, and yet the rigors occurred regularly and resisted all remedies. The treatment he had undergone had in no way mitigated his sufferings. He was emaciated, sallow, and extremely weak. Though there was no urinary symptom present, the urine was carefully examined, but no traces of albumen nor of sugar could be detected. Under this state of things, the patient was one day seized with sudden pain in the side and an urgent call to pass water. While doing so, he projected a uric acid calculus into the chamber vessel, and from that moment all his symptoms disappeared. At the time I attended this case, I was not aware of the value of the tincture of galls as a test. Had I known what I now know of its value, I might probably have been led to suspect the true state of the case.

In cases such as I have described above, we are not assisted to diagnosis as we are in cases showing deposits. We have not the appearance of uric acid to guide us to the truth, nor the albuminous or bloody urine occasionally observed, but the calculus remains behind, producing symptoms variable in character and often most vague. Owing to this, I have known the pains of a renal calculus attributed to hepatic congestion and to intestinal obstruction, and the position obstinately maintained till obvious symptoms placed the matter beyond doubt. I have shown above howague was simulated, there being a most remarkable absence of all renal symptoms, though the case lasted several months. The presence of slight rigor and blueness of the nails must, I fully believe, be regarded as a corroborative symptom in cases of renal calculus. When present in obscure cases (even should there be no well recognised symptoms of urinary disease), the tincture of galls should be used in addition to other tests for the presence of blood-material in the urine, and the symptoms of the case further inquired into with especial regard to the question of renal disturbance.

These remarks may be summed up by stating—1. The diagnosis of renal calculus is often most difficult, no obvious urinary symptom being present to guide us. 2. The tincture of galls, if it give indications of the presence of the blood-extractives in the urine, shows irritation of the renal surface, and the presence of these extractives may be regarded as a corroborative symptom of the calculous state. 3. A tendency to rigor may be placed among the symptoms characteristic of the presence of renal calculus.

Cases of renal calculus are not commonly mistaken for Bright's disease in the present day, though I have known the error committed. This may happen when there has been hæmorrhage from calculus which has passed away and left a transient albuminuria. This albuminuria will also cease, however, leaving the urine after a time charged with extractives of blood only. Whenever there is a history of renal calculus, it is, therefore, well to be careful before giving an opinion as to the existence of Bright's disease. Though the error above alluded to is not commonly committed in cases in which a transient albuminuria is produced by a calculus, it is by no means unfrequent where uric acid in a crystalline form is irritating the renal tubes. Here we frequently find albumen in the urine in considerable quantity, for days or weeks together, while there is much gastric derangement; and the albuminuria may be erroneously attributed to the existence of some form of Bright's disease.

CIRRHOsis OF THE LIVER IN A GIRL ELEVEN YEARS OF AGE.

By THOMAS OLIVER, M.B., Preston.

THE interest attached to Dr. Griffith's case* of cirrhosis of the liver in a child rests mainly on the fact that a disease, which unquestionably is associated with habits of intemperance, is occasionally found in children, or in adults whose character is so well known as to admit of no doubt of their sobriety. The disease in question is so very rarely met with in the young—in those placed beyond the limit of intemperance as a cause—that, even in the present day, it occupies no place in the nosology of children's ailments. From its rarity, many deny its existence. But, from the remarks made by various members at the meeting of the Pathological Society in December last, and especially those of one—an authority on hepatic affections—who for many years remained sceptical on the point, we may now conclude that the occurrence of cirrhosis of the liver in children is a fact fully established. Several cases were quoted by gentlemen then present.

Abuse of alcohol is by all recognised as the chief factor in the production of cirrhosis: of other causes there is a well-grounded suspi-

cion—syphilis and intermittent fever have been cited. In a few of the cases, it would seem that the little patients had been in the habit of taking alcoholic liquors; but in many no such, or any other probable, cause could be found. Frerichs mentions a case which occurred in a boy of ten years of age, and in him departure from health dated from a period—a year before death—when he had been bathing and had been kept by his companions submerged for a time. In him there was no apparent cause. According to Budd, it would seem that the excessive use of curry and other irritating spices may have something to do with its production. All are agreed, however, that in a few cases there is no discoverable cause. One of the most marked instances of cirrhosis of the liver I have met with was in a cat. It has occurred, too, in other animals; and in them there was no assignable cause.

The following case, while adding testimony to the occurrence of the disease in children, furnishes little of any etiological value. There is no history of syphilis or intermittent fever.

E. D., eleven years of age, came under my care in October last. Her history is as follows. The patient had always been a delicate girl. In her infancy she suffered much when teething, but never had convulsions. Her first tooth was cut when she was four months old. From the age of two till eight, she enjoyed fair health, but was never robust. Three years ago, she had measles and suffered from a severe pulmonary affection. As the chest symptoms began to decline, an exhausting and protracted diarrhoea set in. It was a simple diarrhoea. At this time, I am told, *stimulants were made use of*, but only in very small quantities and very freely diluted. Repeated inquiry elicited from the mother that port-wine was given; but it was either freely diluted with milk and water, or more intimately mixed with arrowroot. Brandy was used sparingly for two or three days. She had occasionally taken a little beer; but this, the mother firmly asserted, only since her illness declared itself.

After a tedious illness, she recovered slowly, and returned to school. Soon after her return to school—and at this time she was between nine and ten years of age—her companions noticed that her colour was changed. She was jaundiced, but not deeply. The change of colour was gradual. In addition, they complained that her interest in their games was gone; and that, in place of participating, she was listless and inattentive. On account of her indisposition, they named her "old wife". Her appetite at this time varied, but she made no complaints. In the month of July of last year, she vomited blood, and the jaundice thereafter assumed a more decided tint.

When I first saw her, she seemed a delicate girl, of average height for her years. The symptoms she complained of were great weariness and slight pain in the epigastrium. Her appetite was variable, her pulse weak and bowels regular. She was sallow, and at places her skin was of a dusky-brown colour. The dark colouration was not equally distributed. The brow was very dark, as also the skin at the roots of the hair; elsewhere the face was pale. The conjunctivæ were pale. The abdomen was very much distended, and the skin in front more deeply discoloured than that of the brow. During her illness, the distension of the abdomen increased. There was no pain over the right hypochondrium, and only slight pain was experienced when I applied my hand firmly to the epigastrium. The area of hepatic dulness was diminished; that of the spleen was much increased. It extended downwards to the left renal region, and forwards and inwards to a short distance from the umbilicus. There was no œdema of the feet: at Christmas, however, it made its appearance. Though her bowels remained pretty natural throughout her illness, she suffered on two or three occasions from diarrhoea, which was always easily checked. Her urine was passed twice a day, each time in large quantity. It was of a deep orange-colour; and did not give with nitric-acid a play of colours. There was no albumen. It contained a few oxalates, and amorphous urates in great abundance.

About the middle of January of this year, slight cough supervened, and a few bronchial *râles* were heard over the lower lobes of both lungs. The sounds of the heart were normal. She now began to vomit her food; and her motions, now watched, were found to be streaked with blood. There were external piles.

On the evening of January 22nd, she began to vomit blood containing a few clots, and this continued until 2 P.M. next day, when she died unconscious. In the early part of the night, she seemed to suffer great pain in the abdomen and back.

NECROPSY, made twenty-six hours after death. Rigor mortis well developed. From twenty to thirty pints of clear serous fluid were removed from the abdomen. The vessels of the peritoneum were somewhat injected. The liver was driven up under the diaphragm, to which it adhered pretty firmly. It was very much diminished in size, and was a beautiful specimen of "hob-nail" liver. On section, it was tough, from the increase of its fibrous tissue. The spleen was much

* Pathological Society of London, December 7th, 1875. In Dr. Griffith's case, there was no history of syphilis or intemperance. The patient was ten years of age.