has been known to exist for several years may throw light upon the nature of the ailment, but until it has been proved that the prognosis is serious I should wish to look upon the occasional appearance of albumen in the urine, and the swelling of the eyelids associated with it, as evidence of some vasomotor instability or defective metabolism.

NOTES AND REFERENCES.

¹ Cold nitric acid is mentioned as the test used, but where a ring with nitric acid was obtained there was also a precipitate on boiling in every instance. ² A fourth case of swelling of the eyelids with intermittent albuminuria occurring in a boy, aged 10, is at present under my care at the Bristol Children's Hospital. ³ *Medical Week*, 1895, p. 25. ⁴ *Lancet*, 1891, p. 1323. ⁵ *BRITISH MEDICAL JOURNAL*, i. 1889, p. 807; *Lancet*, ii, 1887, p. 1157.

THE SEAT OF PAIN IN BILIARY COLIC.

By J. H. KEAY, M.A., M.D.,
Greenwich.

In that comparatively small region of the body that lies between the diaphragm and a line drawn at the level of the umbilicus is to be found a large proportion of those diseases that call for treatment in everyday practice. The close proximity and intimate connection between such important organs as the stomach, duodenum, pancreas, liver, gall bladder, and bile ducts, and the fact that these organs can for the most part be only indirectly explored, render the diagnosis of disease in that region specially difficult. Not seldom do the most skilled and careful investigators find great difficulty in deciding whether they have to deal with a case of ulceration or malignant disease of stomach, contraction of pylorus, malignant or other disease of the gall-bladder and bile-ducts, or even a wandering kidney or appendicitis. As these various diseases demand such different treatment, medical and surgical, any contribution, however slight, that may serve as a guide to a correct diagnosis, may not be unacceptable.

A long and painful experience of biliary colic, a careful observation of the seat of pain before calculi were at various times passed, and, as was natural, a more than usually minute inquiry into the symptoms of those who have similarly suffered, have led me to the conclusion that the seat of pain has seldom, if ever, been correctly described in text books. The description given by Naunyn, Mayo Robson, Kehr, Waring, and others, is mostly in the same terms. It would be too tedious to quote what is said by the many writers on the subject. Naunyn's description comes nearest to my own personal experience, and to what I have observed in others, but does not quite accord with it:

The pains usually commence in the epigastrium and afterwards spread into both hypochondria and to the back, while they are often felt not only to the right but on both sides of the vertebral column. Sometimes they extend upwards to the head and neck, or downwards to the lumbar, and even to the sacral region. Now and again they radiate into the upper part of the thigh and along the arms even to the finger-tips.

It may seem absurd that from my own personal experience, and an inquiry into only a limited number beyond those I have met with during over twenty years of private practice, I should call in question statements made, for example, by Kehr, whose book recently published gives an account of the 433 operations he has undertaken during the past few years for diseases of gall bladder and bile ducts. But, as Kehr himself admits, his cases were mostly operated on a day or two after they came to his clinic, and he further insists that if we are to arrive at a right appreciation of those symptoms that lead to diagnosis of gall stones, we must look not to the surgeon or consultant, but to the medical man who is called on to treat the patient when acutely suffering, and is in daily or it may be hourly attendance.

I do not know that I can better express my own experience than by giving the statement of a patient who has long suffered from biliary colic, and refused operation. In answer to a leading question suggesting that the pain must be over the gall bladder, she answered, "You know better. When the pain begins there I know I am to have a slight attack, and don't mind it much; but I know I am in for it when the pain begins in the back." If patients were not influenced by the suggestion of the medical attendant that the pain is in the region of the gall bladder, or questioned about it afterwards, when, even if otherwise observant, the severity of the pain or the effect of opiates has dimmed the recollec-

tion, but asked to carefully note during further attacks the onset, progress, and disappearance of the pain, I think it would then be found that my experience is by no means unique. Long before an acute attack there are generally pains in the back often mistaken for lumbago or some spinal mischief; but when a calculus is fairly lodged and trying to find its way through the bile ducts the pain begins about the tenth or eleventh dorsal vertebrae, gradually passes round, and though not quite disappearing, gives place to excruciating pain in the right and often in the left hypochondrium, middle or lower abdomen, frequently above the right nipple, but practically never the right shoulder. Immediately before the pain subsides, and when in all probability the stone is just entering the duodenum, a peculiar gliding sensation is sometimes felt about two inches to the right of the tenth to twelfth dorsal vertebrae.

That pain often begins in the right hypochondrium and then radiates elsewhere I readily admit; but I have not found these attacks followed by the passage of gall stones, and in carefully going over the history of numerous cases operated on by Kehr, I cannot but conclude that this pain is practically always due to the fact that the gall bladder is distended with calculi, unhealthy bile or pus, that there is hour-glass contraction, or a localised peritonitis or adhesions.

When a medical man is called to a patient suffering from the passage of a biliary calculus, the pain may be shooting, tearing and dragging in all directions, and the torture so exquisite, that little can be learned from the patient as to past history or the nature or seat of pain, a diagnosis is by no means easy. In my experience, however, a whiff of chloroform not sufficient to produce unconsciousness will often remove the difficulty. Under chloroform the distant or referred pains gradually cease, and the order of cessation to anyone cool enough to observe it is often interesting, and there remains only a distinctly localised pain at the bile ducts. This is what one might naturally expect from the similar effect of chloroform on neuralgia proceeding from a carious tooth, or sciatica when the pressure is on some particular part of the nerve.

NOTES ON A CASE OF BRIGHT'S DISEASE
COMPLICATED WITH GANGRENE.

By ALEX. D. H. LEADMAN, L.R.C.P. EDIN., ETC.,
Pocklington.

THE extreme rareness of gangrene in Bright's disease leads me to think that it will be worth while to record the following case. During an experience of more than thirty years I have never seen a case like it, nor can I find any record of one.

Early in March, 1899, I was called to see Mr. G. S., a gentleman aged 46, strong and active, widely known in agricultural circles, and the representative of a long line of highly respected owners of the estate on which he lived. The symptoms at first were bronchial, following an attack of influenza, for which he had treated himself previous to sending for me. As swelling of the legs came on, the urine was examined, and found to be: specific gravity 1020, with much albumen and slight sugar. He was most unwilling to lie in bed, and would not only walk out, but also superintend and even help with the work. One day, after some unusual exertion, the heart's action became very irregular. There was no murmur, but very tumultuous action, intensified at times, and causing attacks of dyspnoea. At last he was prevailed upon to lie in bed for fourteen days, during which time the sugar entirely disappeared, the albumen lessened in quantity, and the heart's action improved so much that he could lie down night by night in comfort. He got comparatively well, able to go about, take long journeys, and act as judge at several large agricultural shows. The general treatment was nutritious food, warm clothing, avoidance of chills, cheerful company, change of scene, and an effervescent saline, in which digitals largely figured. He called at my house periodically, and remained under continuous treatment the rest of the year, during which period the albumen on two occasions nearly disappeared. I advised removal to a warmer climate and a more level country, but this he would not hear of, as he preferred his native home in the bosom of the Yorkshire Wolds.

On January 14th, 1900, I was invited to dine with him but was prevented. Two days later I received an urgent letter to visit him. The friends I was to have met on that Sunday told me how ill he seemed to be then. When I saw him the legs were very much swelled, there was intense dyspnoea, with tumultuous action of the heart. He was at once sent to bed. The urine was scanty, specific gravity 1020, highly albuminous, but no sugar. There was no atheroma of the arteries. On January 24th I met Dr. Parkin, of Hull, in consultation. Our prognosis was unfavourable. On February 6th, whilst Mr. S. was washing himself close to the bed, violent pain came on suddenly in both legs. He could not move, and had to be helped back to bed. The

legs became icy cold, and it was some time ere warmth came back. Of course I suspected gangrene and treated it accordingly. On February 7th gangrene commenced to invade not only the foot but above both knees. On February 8th I met Dr. Parkin again, when it was still spreading up the thighs. There was not the slightest pulsation in either femoral artery. So things went on from bad to worse. On February 24th I had another consultation with my old friend, Mr. Teale, of Leeds. On February 27th septic symptoms set in, there were severe rigors, delirium, etc., whilst nourishment, which up to February 24th had been taken well, now was often refused. On March 1st uncontrollable diarrhoea set in, with occasional vomiting. On March 4th there was extreme tympanites, and from this day nothing but a little weak whisky and water was swallowed in teaspoonfuls only, until the end came on March 10th at 10.30 A.M. The urine was examined from time to time, the last taken two days before death, with the same result; specific gravity 1020. Copious albumen—in a column of urine 4 inches high in the test tube one-half would be albumen of such solidity that if turned upside down it would remain unbroken—no sugar. Before death the gangrene spread over the whole of both lower extremities, whilst from above the knees downwards mortification was complete.

I returned the causes of death: Chronic interstitial nephritis, two years; hypertrophy of the heart, ten months; occlusion of the lower part of the abdominal aorta, causing gangrene of both lower extremities, one month; and consequent exhaustion, six days. I must add that this gentleman was not in any way a drinker, in fact, he was most abstemious, but being an inveterate sportsman, he had over and over again been out shooting his own covers, and away with friends on wet days, and many a time had never changed his clothes. No post-mortem examination was obtained.

A CASE OF GLANDULAR FEVER ASSOCIATED WITH ERYTHEMA NODOSUM.

By BERTRAM THORNTON, M.R.C.S., L.R.C.P.,
Surgeon to the Royal Sea-Bathing Hospital, Margate.

THERE is a condition of enlargement of the glands of the neck, associated with certain definite symptoms, which is described by Dr. Dawson Williams in Allbutt's *System of Medicine* under the name of "glandular fever" (*Drüsenfieber*).

The clinical history of this disease is fairly familiar, but the causation still remains obscure. The general description of its course and symptoms, however, appears to suggest some constitutional infection. It is, of course, impossible to draw reliable conclusions from an isolated case, but the association of this disease with erythema nodosum in the case I am about to record was sufficiently remarkable to suggest that the poison of rheumatism may have produced both the enlargement of the cervical glands and the erythematous nodules.

G. W., a healthy girl, aged 25, with a family history free from tubercle or rheumatic fever, was accidentally found to have a mitral systolic *bruit* in March, 1899; this was attributed to a vague indisposition in the previous year for which no medical advice had been sought. On November 20th, 1899, the child was suddenly taken ill with stomach ache, severe pain in the neck, followed by enlargement of the glands in the anterior triangle on the left side, and a temperature of 102°. The throat was not then, or subsequently, either inflamed or injected, nor was there any other apparent source of irritation. On the second day the temperature rose to 104°, and the glands on the right side became enlarged. On the fourth day there appeared a few small erythematous papules on the legs, which increased in size and number till the eighth day, when they developed the characteristic nodules of erythema nodosum. Both conditions pursued the usual course, the temperature remaining elevated for

about 26 days, when the nodules disappeared and the glands began to subside. Anæmia was early and marked; perspiration was considerable and of distinctly rheumatic character; at first there was constipation and latterly slight mucous diarrhoea. Convalescence was slow, the debility and anæmia being very persistent, and it was fully three months before the child regained her normal health, the glands on the left side having completely subsided. Sodium salicylate was given on the first day the erythematous papules were observed, but without apparent effect. The marked anæmia and debility that persist after glandular fever are special features of this disease; they are also special

features of the convalescent stages of acute rheumatism. An acute local adenitis due to some obvious lesion in the throat, mouth, or elsewhere is not as a rule associated with such prolonged debility and anæmia, and it is usually unilateral. This leads one to search for some general systemic infection to account for the symptoms. Acute tuberculous enlargement of the cervical glands is, in my experience, not associated with such persistent anæmia and debility. Incidentally I should like to express my opinion that there seems to be too great a tendency to consider that most enlarged cervical glands are necessarily tuberculous; owing to this tendency operations are not infrequently urged before the glands have had a fair chance to subside with the assistance of good food, abundance of fresh sea or mountain air, and bright sunshine. Enlarged glands, whether tuberculous or otherwise, should have, if possible, several months of open-air treatment, unless there is some decided call for operation.

In the particular case which has been described above the rheumatic poison is, to my mind, strongly suggested as the cause of the typical attack of glandular fever; whether it may also be the source of the disease in other cases further observation will doubtless show.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, ETC.

AMPUTATION WITHOUT ANÆSTHESIA.

IN the BRITISH MEDICAL JOURNAL of March 31st, page 761, is an interesting memorandum under this title from Mr. Jasper Cargill, L.R.C.P.Lond., of Monathie, Jamaica, in which he describes a case of amputation of the leg of a black woman, between 30 and 40 years of age, after the ill-effects of chloroform had passed off, and the natural sensibility had been restored.

Mr. Cargill reports that, on being informed "that the operation would not be proceeded with, and why," his patient calmly said, "Please cut it off, doctor; I can stand it without chloroform." The leg was afterwards removed, dressed, etc., without the slightest movement or the utterance of a groan from the woman.

Now some people may be ready to exclaim that in the negro race there must be some obtundity of sensibility, the colour of the skin indicating a less advanced development, and consequently less resolution or heroism is necessary for the endurance of acute suffering. But is it so? My experience is antagonistic to such a theory.

Unlike Mr. Cargill, my surgical days were in the "ante-anæsthesia," as well as since that wonderful evolution in the science and art of our noble calling; and I remember, after ether and chloroform were known as pain-annihilators, having to amputate the breast of a highly-refined lady of the pallid, nervous temperament, and nearly 40 years of age, who objected to take chloroform, fearing its lethal consequences.

During the operation she never moved and never said "Oh!" but simply compressed her lips. She quietly smiled or said "Thank you" when all was over. Did that lady not feel acutely? Certainly she did; and her suffering must have been intense, but her moral courage was so much under the influence of an invincible petticoat government which regulated all her actions that the operator could only wonder and admire, and wish that she and all such women were the mothers of all the masculine world.

One man I once saw with a kindred nerve, but he was a big athlete who had so injured one of his fingers that I deemed amputation imperative. When told so he replied, "You know best; get to work." I suggested ether, but he would have none of it, and the idea of pain he laughed at with scorn, and kept laughing and joking all the time I was operating, the legitimate minute being prolonged through the splitting of our sympathetic sides.

What is pain? Some of your very philosophic penmen can perhaps tell us, and guess what the people are made of who can suffer and smile at the same moment, and with apparently equal enjoyment or ease.

Hove, Sussex.

D. MACKINDER, M.D., F.R.C.S.E.

IN the BRITISH MEDICAL JOURNAL of March 31st Mr. Jasper Cargill reports having amputated the leg of a black woman below the knee without an anæsthetic. As I too have had to operate