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*, 1. 1889, p. 807; *Lancet*, 11, 1887, p. 1157.

THE SEAT OF PAIN IN BILIARY COLIC.

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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.,
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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 digitalis 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