TREATMENT OF THE PAROXYSM OF MIGRAINE BY ACIDS.

By A. HAIG, M.B.Oxon., M.R.C.P.,

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In a paper read at the Royal Medical and Chirurgical Society in May, 1887, and published in the *Transactions* (vol. lxx), I showed that a certain form of headache was closely connected in time with a large excretion of uric acid; and in a subsequent paper in the *Journal of Physiology*, Vol. viii, Nos. 3 and 4, I showed that within certain limits it was possible to diminish almost at pleasure the excretion of uric acid by giving acids, or to increase it at pleasure by giving alkalies; and further, in a recent paper for the *St. Bartholomew's Hospital Reports*, I have given notes of some cases of the above headache which had come under my notice, calling it "the uric acid headache," with the object of drawing attention to the extremely important part which uric acid plays, as I believe, in its causation; but I may say at once that I have very little doubt, and those who read my cases in the *Reports* will, I think, agree with me that this headache is really a member of the class commonly known as "migraine or sick headache."

My object here is not to discuss the many interesting points in the etiology and pathology of this headache and its related diseases, but to point out as quickly as possible a mode of treatment of the paroxysms, which is the direct outcome of my uric acid investigations, especially those in the *Journal of Physiology*, and which has met with such complete success in my own hands that I am anxious that it should be tried by others on a larger scale.

It will be seen that I have shown in the above papers that, during this headache, uric acid is excreted in excess in the urine, and probably also exists in excess in the blood, and further that it is quite possible to stop this excess in the urine, and also I believe in the blood, by means of acids, and it is to this treatment of the headache paroxysm by acids that I now wish to draw attention.

The acid used is not of much consequence; citric or nitro-hydrochloric are equally good; the only point is that the dose must be sufficiently large, especially if, as is often the case, the headache is going on during the "alkaline tide" of digestion. A dose I commonly find successful is forty to sixty minims of dilute nitro-hydrochloric acid in a tumbler of water, one half to be taken at once, and the rest in thirty or forty minutes; the headache is generally much better within an hour, and quite gone within an hour and a half from the first dose. If the urine is alkaline, or very slightly acid before this treatment is begun, or if the patient has previously been taking alkalies, a third dose of twenty minims of the acid may be necessary; but I rarely have to go beyond one drachm of nitro-hydrochloric acid, and I have given some notes in the *Journal of Physiology* of the effects of such a dose on the uric acid excretion. An equivalent dose of citric acid, taken as strong lemonade, will do as well, or, so far as I know, of any acid that may be preferred, provided it raises the acidity of the urine. It is also possible to reverse the process, and, by giving alkalies, to bring the headache on or increase it.

The above refers entirely to the treatment of the paroxysm; a diet without butcher's meat, beer, wine, etc., is, as I have said in previous papers (*Practitioner*, August, 1884, and March, 1886) the best preventive treatment.

If acids, properly and carefully given as above, completely fail to relieve, the headache is not migraine, or at least not migraine due to uric acid; and if the urine be tested in the way I have described, probably no uric acid rise will be found corresponding to the headache.

A large number of drugs reported to be useful in migraine really act as acids, increasing the acidity of the urine and diminishing the excretion of uric acid. Some others probably act like the bromides by quieting the nerve centres, and preventing their reacting to the irritant in the blood; but as compared with bromides, the treatment by acids is more satisfactory in that it removes the irritant from the blood, and leaves the nerve centres intact for other processes.

SUCCESSFUL CASE OF EXTIRPATION OF THE KIDNEY FOR HYDRONEPHROSIS.

By WALTER FELL, M.B.Oxon., Wellington, New Zealand.

The patient, Mrs. T., was aged 31. She had had six children, of whom three were living. The catamenia were regular, but she had always been somewhat delicate. I first saw her in June, 1886, when she complained of periodic attacks of intense pain in the right lumbar and hypochondriac regions. On examination a hard, freely movable body, about the size and shape of a kidney, was found in the right flank just below the last rib; it could be pushed forward nearly to the umbilicus. The diagnosis of movable kidney was made, and she was recommended a pad and bandage to keep it in place.

At my second visit, three months afterwards, on September 1st, she told me she had suffered intolerable pain, and that the attacks were becoming much more frequent. She had just gone through two days of intense suffering, with incessant retching and vomiting; the least exertion seemed to bring on an attack. She was thinner, and looked much worn. There was no rise of temperature; the urine was clear and pale, with no albumen. On examining the abdomen, the same movable tumour could be felt as before, but now it was much larger, and came forward as far as the umbilicus, while the anterior part fluctuated. The uterus was pushed forward, and its length was normal, and was unconnected with the tumour, which also appeared to be quite separate from the liver. An operation was recommended, to which she at once consented.

On the next day but one, on seeing the patient again, I found her laughing and free from pain, and on examining the abdomen the tumour had disappeared; the kidney could still be felt a little in front of its usual position, but the fluctuating swelling reaching to the umbilicus was completely gone, and this she told me was always the case: "When the pain was bad the lump was there; when the lump went away she was as well as ever again." The obvious explanation appeared to be that the ureter got blocked for some reason or other, the pelvis of the kidney enormously dilated, pain and vomiting followed, only to be relieved by the obstruction yielding and the tumour emptying itself. I could not get any distinct history of excessive flow of urine at these times, but she thought a good deal was always passed then. There was never any blood in the urine. It seemed to me that, during the paroxysms of pain, she ran considerable risk of rupture of the thinned and dilated pelvis of the kidney; so on September 5th, assisted by Dr. Collins and Dr. Rawson, I proceeded to operate. The spray and full antiseptic precautions were used.

An incision about four inches long was made in the position for right lumbar colotomy, but carried a little more forward than usual. On getting through the abdominal walls, the first thing that came into view was the edge of the liver, and immediately below this the kidney. On passing the hand cautiously forwards towards the umbilicus, a large bag containing fluid was made out; it was evidently a part of the kidney, and pressure on it reduced its bulk somewhat. The cyst being thus partially emptied, a finger could, by invaginating it, get into the centre of the kidney; so that, with the thumb outside, it was possible to make out that the substance of the kidney proper was much reduced. The kidney was, in fact, being slowly converted into a large cyst. After a brief consultation it was decided that the kidney was useless and a source of danger, and had better be removed. Accordingly, as it was bound down tightly by its lower surface, I cut into and stripped off the capsule, which was adherent in parts, and shelled out the kidney; and then, getting my fingers beyond the cystic part, with some difficulty tearing away a lot of loose areolar tissue, I was able to get hold of the large mass of vessels—ureter, connective tissue, and mesentery—which constituted the pedicle, and transfix it and tie it in three portions. After removing the tumour, smart bleeding took place from some unsecured vessel in the upper part of the wound and deep inside. Only a few seconds elapsed before the artery was secured, but the loss of blood was sufficient to cause an alarming condition of collapse. A stout double silk ligature was passed round a mass nearly as large as three fingers, from the centre of which the bleeding came. The whole was tied securely, and the ends of the ligature cut off short. The wound was then sponged and rapidly closed with five deep and three superficial sutures, and dry iodoform gauze dressings were applied. The whole operation, from the time of commencing the administration of the æsthetic, occupied an hour and a half.

The subsequent history is soon told. Recovery was rapid and uninterrupted. The temperature once rose to 100°, but never exceeded this point. On the twenty-second day the patient was sitting up in

BEQUESTS AND DONATIONS.—Mr. Nathaniel Montefiore has given £1,500 towards the rebuilding of University College Hospital, namely, £1,000 for Mrs. Nathaniel Montefiore, and £500 for Mr. Claude G. Montefiore, Mrs. Alice Lucas, and Mrs. Charles McIver.—The Sussex County Hospital, Brighton, has received £500 under the will of Mrs. Stanford; and 50 guineas from Messrs. Findlater, Mackie, and Co.

a chair, looking stonter and better than she did before the operation. She is now, after an interval of eight months, going about in good health, the one kidney apparently sufficing to do all the work. On examining the kidney that was removed, the ureter appeared, at the spot where it left the pelvis of the kidney, to be intensely inflamed, the mucous membrane being highly congested. Whether this was the cause or the result of the obstruction I am unable to say. The case appears to me to be of interest as being one where a functionally active kidney, capable of and actually engaged in doing a large share of the excretory work, was suddenly removed without in any way apparently affecting the general health, most of the cases I have seen reported having been of the removal of a kidney which, from long suppuration or other cause, had ceased to be anything but a mere *nominis umbra*.

CLINICAL MEMORANDA.

A CASE OF ACUTE TRAUMATIC TETANUS, SUCCESSFULLY TREATED BY LARGE DOSES OF SALICIN AND BROMIDE OF POTASSIUM.

NOTES of the following case have been sent me by my old pupil, Mr. E. Thurlow Prior, of Loddon, Norfolk. I quite agree with him in thinking that the case is one of interest, and that the treatment merits a further trial.

A.M., aged 26, a young man of rather intemperate habits, cut his arm severely on June 30th, 1887, by thrusting his hand through a window. The wound appeared to be making good progress until July 15th, when he complained of pain in the epigastrium. In the course of the day his face began to stiffen, and there were twitches of the muscles of the face and of the back and legs. These grew worse until July 19th, when Mr. Prior was first called to see the patient. At this time the risus sardonicus was well marked, and spasm was elicited by speaking sharply or loudly to him. He was placed in a warm room, which was fitted with carpets and curtains to deaden sound, and full doses of chloral hydrate and bromide of potassium were administered. But he grew worse; the breathing became laboured, the pulse very rapid. On July 22nd he appeared to be actually dying; the respirations and pulse could not be counted, and spasms recurred with extreme rapidity.

At 1 P.M. a draught was given of salicin gr. xx, potassium bromide gr. xx, every two hours. At 5 P.M. the spasms occurred only at intervals of ten minutes, the pulse was stronger and numbered 120, and severe perspirations had set in. On the following morning, July 23rd, the intervals between the spasms had increased to twenty minutes; he breathed easily, and the pulse was still stronger and less rapid. The draught was now ordered to be taken every four hours. The improvement continued during the next two or three days, but several days elapsed before he was free from pain in the epigastrium, and for nearly a fortnight it was necessary to draw off his urine. At the end of six weeks he was convalescent. The only trouble which remains is the stiffness of the muscles of the upper extremity, due to the direct effect of the injury.

The rapidity with which improvement followed the administration of salicin and bromide of potassium leaves scarcely a doubt in the mind that the change in the condition of the patient must be attributed to the action of the medicines. It is, of course, difficult to assign to each drug its actual share in the cure. The improvement was marked by the occurrence of a profuse sweat, and this had probably something (perhaps much) to do with the recovery of the patient. The influence of the salicin was, perhaps, exerted on the vasomotor centre, and its action as a germicide must not be left out of the account. It is to be observed that the case was one of acute tetanus, but not of the most acute variety, for the patient was not in imminent peril until the eighth day of the disease.

HENRY T. BUTLIN.

Harley Street, W.

A CASE OF UNTREATED PSORIASIS OF FOURTEEN YEARS' DURATION, ACCOMPANIED BY CORNS ON THE PALMS OF BOTH HANDS.

IN Mr. Hutchinson's paper upon Arsenic Cancer, reported in the JOURNAL for December 10th, several cases of psoriasis are described, in which, after a prolonged course of arsenic, corns appeared on the palms of the hands. In connection with the report of these cases the following instance of psoriasis entirely untreated, but yet accompanied by corns, is of interest.

W. W., aged 52, a butcher by occupation, came under treatment a few weeks ago for vomiting and headache. He is at present the sub-

ject of unmistakable psoriasis, and he has had his present skin affection for about fourteen years. The patches of psoriasis, however, have never troubled him enough to make him take any steps towards its cure, but he is a good deal concerned about a crop of small corns which have lately (he says) made their appearance on both palms. They are scattered indiscriminately over the palms and flexor surfaces of fingers and thumbs. Near the tips of some of the fingers they are sufficiently numerous to thicken the skin and make the fingers feel numb. In many places he has picked the skin, and produced a roughened pitted surface. There are no signs of ulceration on either hand. There is no reddened skin, and there are no cracks or fissures, or warts. The skin on the soles of the feet is natural, except for some large corns, evidently of pressure origin. The skin over the rest of the body is, excepting for psoriasis patches, quite healthy. There is no history of syphilis, and no evidence of it, and no enlarged or hardened glands are anywhere to be felt.

Barnet, Herts.

W. A. Fox, L.R.C.S., L.M. Edin.,
R. J. RYLE, M.B. Oxon.

RELAPSING COMA DUE TO TUBERCULOSIS.

J. J., a groom, aged 20, was admitted into the Queen's Hospital on December 3rd in a state of coma. The family history was said to be good, there being no account of any hereditary disease. The patient had been steady, and had had no illness except slight bronchitis three months and erysipelas of the head and face six weeks previous to his present illness.

On November 27th, he first complained of great pain in the head, but he had no vomiting. The pain gradually became worse, until in a few days he became unconscious. On admission, the patient was found to be emaciated, the abdomen was retracted, he could not be roused, and he passed his urine and faeces involuntarily. The pulse was 72 per minute, and regular; the temperature was subnormal; the plantar reflex and knee-jerk were absent on both sides; the urine contained a cloud of albumen; the patient's head and eyes were turned to the right, and he could not move his left arm; the conjunctival reflex was lost on the left side; the margin of the optic discs was clear, except where the vessels emerged, in which situations it was indistinct; the veins were full and tortuous.

On December 7th, the patient was conscious, could reply to questions, and talked with his friends. The knee-jerk was present on both sides; the grasp of the left hand was much weaker than that of the right. On December 8th, the patient was again comatose; the next day, however, he could be roused, and answered questions sensibly. Towards the evening of December 9th, he again became comatose, the knee-jerk being again lost. He remained thus till December 16th, when he died. He moaned a great deal while comatose. On the day of his death coarse *râles* were heard over the chest but there was never any dyspnoea or important physical signs. The pulse remained regular and the temperature subnormal throughout. At the necropsy the lungs were found to be infiltrated with miliary tubercles, and tubercles with a slight degree of meningitis were found at the base of the brain. The kidneys were healthy.

The interesting features of the case are: 1. The well-marked remittent character of the coma, which was very striking. 2. The absence of fever, the temperature, in fact, being subnormal throughout. 3. The absence of alterations in the pulse or in the breathing, although the lungs were full of miliary tubercle. 4. The loss of the knee-jerk during the stage of coma, with its reappearance during consciousness. The emaciation and the retraction of the abdomen pointed to tuberculosis, but the absence of fever and the sudden onset of the illness prevented the diagnosis being a positive one. In cases of coma without fever tuberculosis must be borne in mind as a possible cause.

Birmingham.

C. W. SUCKLING, M.D. Lond., M.R.C.P.

OPHTHALMOLOGICAL MEMORANDA.

CUCUINE IN SQUINT OPERATIONS.

IN the JOURNAL for December 10th, Mr. Edgar Browne describes a new strabismus hook, which is also an injection syringe, and which can therefore water its own path with cucaine. In the number for December 24th, Mr. Lloyd Owen points out that it is desirable to anaesthetise the tissues before introducing the hook; he opens the conjunctiva, etc., with the scissors in the usual way, and then, with a pipette, introduces a few minims of cucaine solution beneath them. The tendon is divided two or three minutes later.

I desire to mention another plan which answers extremely well, and