TREATMENT OF THE PAROXYSM OF MIGRAINE BY ACIDS.

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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.