

man was conscious of frequent creeping movements in the part of the leg which was drawn upon. In the course of twelve days the animal loosened its hold and came away. It measured nearly thirty inches.

In a few days a small superficial abscess formed in the skin below the malleolus. Its centre whitened and became shallower than the margin, and then opened, discharging a little pus, but no part of the worm appeared in it. The orifice from which the worm had been taken contracted, and seemed likely to close, when swelling took place in the deep tissues behind the lower half of the tibia and on the inside of the foot, and a second abscess formed behind the internal malleolus. The first opening was enlarged, and found to be connected with a deep unhealed cavity beneath the fascia. The recent abscess was opened, and thick pus was let out. No visible fragment of a worm escaped by either of these openings, and no loop of the worm could be hooked out through them with a bent probe; but with the microscope many long broken fragments, split and lightly streaked or crumpled longitudinally, like vegetable fibre, as well as some curved and coiled unbroken bodies resembling the young of the dracunculus, were found in the discharge from the first opening. The former were thought to be fragments of the exterior of a portion of the worm which had been cut off and had died in the tissues, and the latter to be its larvæ. To the presence of such dead portions of the worm in the tissues the suppuration in the limb appeared to be due; and as the young do not become sexually mature or breed within the human body, these discharges seemed to ensure the recovery of the patient.

By the 20th of February the abscesses had healed, the thickening of the deep tissues of the limb had much diminished, the man was able to walk, and he was discharged.

WESTMINSTER HOSPITAL.

EXTENSIVE LACERATED WOUND OF SCALP, FOLLOWED BY
MENINGITIS AND SUPPURATION OF THE ARACHNOID
OVER THE LEFT CEREBRAL HEMISPHERE, AND
LOSS OF SPEECH.

(Under the care of Mr. HOLTHOUSE.)

THIS case is placed on record, not on account of its presenting any peculiarity, but with the view of adding one more fact illustrative of the connexion between loss of speech and lesions of the left cerebral hemisphere.

M. D—, aged forty-six, bricklayer's labourer, was admitted on the 18th of November for an extensive lacerated wound of the scalp, produced by the fall of a wall. A large flap which extended from the forehead to the occiput, and laterally into each temporal region, completely laid bare the bones to the same extent. There were no symptoms of concussion or compression, and the patient, a remarkably quiet and unexcitable man, went on very well for some days, and bid fair to make a good recovery. On the 29th, however, he had a prolonged rigor, followed by heat and perspiration, and the pulse, which had hitherto ranged between 70 and 80, was now 96. The wound continued to look perfectly healthy, and the pus was of the good laudable kind.

Nov. 30th.—The patient makes no complaint of pain anywhere, and does not look ill, but confesses to having some headache when asked. The wound likewise continues healthy-looking; but his pulse is 96 to 98, and he has had a repetition of the rigors. Mr. Holthouse remarked to the students on the extreme gravity the case had assumed; and, notwithstanding the absence of any marked untoward symptoms, and the continued healthy appearance of the wound, he diagnosed intracranial suppuration, and gave an unfavourable prognosis.

Dec. 1st.—Still makes no complaint, except of a slight headache, and the wound continues healthy-looking, but his general appearance is unfavourable: he looks pale and ill, the tongue is furred and inclined to be dry, the lips livid, and the pulse small and feeble.

2nd.—Lies in a state of sopor, but can be roused from it, and understands what is said to him, but makes no effort to answer questions, though he looks intelligently, and evidently comprehends what is said: thus, he put out his tongue when told to do so, and stretched out his hand when told. There is no paralysis of the limbs or face, and his motions are not passed under him; wound still looking healthy, though stationary; pulse very feeble, frequent and intermittent.

3rd.—Sopor increased—cannot be roused; pulse 120, small and feeble, but not intermittent; had several convulsions in the course of the day, affecting the right side of the body.

4th.—Died at twenty minutes past twelve P.M., the convulsions continuing to recur at intervals.

Post-mortem examination.—In the examination of the head, which was all that was permitted, pus was found in the cavity of the arachnoid over the whole of the left cerebral hemisphere, and a small quantity also existed between the dura mater and the bone in the same situation; none extended over the right hemisphere or into the cerebral substance.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 28, 1865.

DR. ALDERSON, F.R.S., PRESIDENT.

ON THE SOLVENT TREATMENT OF URINARY CALCULI.

An Experimental and Clinical Inquiry.

BY WM. ROBERTS, M.D.,
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(Communicated by Dr. BENGE JONES.)

THIS paper is divided into two parts. The first part is devoted to experiments and observations relating to the solvent treatment of uric-acid calculi by alkalisng the urine by internal medicines. The inquiry starts from two known data—namely: first, that uric acid is dissolved by solutions of the alkaline carbonates of a certain strength; and secondly, that alkaline carbonates can be introduced into the urine, so as to render it alkaline, by the administration of certain salts by the mouth. The practicability of dissolving renal and vesical calculi, composed of uric acid, by alkalisng the urine, is inquired into under ten headings or sections as follows:—

Section 1. Comparison of solutions of carbonate of potash and carbonate of soda: in which it is shown that solutions of carbonate of potash are better solvents for uric acid than solutions of carbonate of soda.

Section 2. Comparison of solutions of different strength: in which it is shown that the greatest solvent power (for uric acid) lies in solutions containing from forty to sixty grains of carbonate to the imperial pint. Above this strength dissolution is soon prevented by the formation of a crust of biurate which invests the stone. Below this strength the solvent power gradually declines.

Section 3. Comparison of the effects of varying volumes of solutions of constant strength.—It is shown that the quantity of the solution permitted to pass over the stone, between the limits necessarily imposed by the capacity of the kidneys to separate aqueous fluids, is of slight importance. A flow of three or six pints during twenty-four hours was found nearly as effective as a flow of eight or fifteen pints.

Section 4. Absolute rate of dissolution of uric-acid calculi in solutions of the alkaline carbonates.—It is shown that solutions of carbonate of potash, of the maximum solvent power, when passed at the rate of from three to eight pints in the twenty-four hours over uric calculi, at the temperature of the body, dissolve from ten to twenty per cent. of the weight of the stone each day.

Section 5. The most convenient way of alkalisng the urine, the degree of alkalescence which can be communicated to it, and the doses required to produce the desired effect.—The bicarbonate, acetate, and citrate of potash are found the most effective substances to alkalisng the urine. Of the three the citrate is preferred. It is found that forty grains of citrate of potash dissolved in five ounces of water, taken every two hours, alkalisng the urine to a mean degree corresponding with the maximum solvent power of solutions of carbonate of potash.

Section 7. The effect of alkalisng urine on uric-acid calculi.—The urine of a person taking full doses of citrate of potash, as recommended in Section 5, is passed over a uric-acid calculus at blood heat. The stone (weighing 180 grains) loses weight at the rate of twelve grains and a half in the twenty-four hours. In the performance of experiments on this point it came out that if the urine became ammoniacal (from decomposition of urea), it ceased to dissolve the uric acid, and the stone became invested with a crust of precipitated phosphates. Whence the important deduction is drawn, that ammoniacal decomposition of the urine in cases of vesical calculi puts an absolute bar to the effectiveness of the solvent treatment by alkaline carbonates.