Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 22ND, 1870.

DR. BURROWS, F.R.S., PRESIDENT, IN THE CHAIR.

A THIRD COMMUNICATION ON THE ENDEMIC HÆMATURIA OF THE SOUTH-EASTERN COAST OF AFRICA, WITH REMARKS ON THE TOPICAL MEDICATION OF THE BLADDER.

BY JOHN HARLEY, M.D., F.R.C.P.,

PHYSICIAN TO THE LONDON FEVER HOSPITAL, ETC.

AN almost daily opportunity of watching a case of this disease for nearly a year enables the author to give precise information concerning, firstly, the prostatic form of the disease and its treatment; and, secondly, the structure and development of the parasite. The prostatic form of the disease is attended by an intermittent discharge of venous blood, never exceeding a teaspoonful, and always mixed with urine, recurring after variable intervals of from two to fourteen days, and continuing for several days in succession. The morbid appearances are confined to the last tablespoonful of urine, which contains the blood and casts (composed of mucus or blood) of the passages in which the parasites lie. Apart from the passage of blood, and the egg-bearing casts, there was no inconvenience—no impediment to the flow of urine, nor the slightest irritation of the genito-urinary apparatus.

The treatment was, at first, general, consisting in the use of such remedies as iodide of potassium, henbane, &c., which are eliminated unchanged by the kidneys. This general treatment affected the parasite to a limited extent only, and was, therefore, supplemented by local medication in the form of injections of strong infusions of wormwood and quassia, emulsions of oil of male fern in these solutions, and of solutions of iodide of potassium and some other salts. The author describes the effect of each of these drugs, and relies most of all on iodide of potassium, which was given in quantities varying from ten to thirty grains in five ounces of infusion of quassia as a daily injection. Evidence of the absorption of this remedy was manifest, and the effect was very beneficial; and by the intercurrent use of injections of oil of male fern, the parasitic products with which the tunnels in the mucous membrane are stuffed were thrown off and the parasites destroyed. Morbid products, including portions of the adult animals, and laminated corpuscles, derived from the prostate, are figured and described.

With a view to its detection in the waters of the infected districts, the author has very carefully described and delineated the embryo of the parasite, which is a little ciliated animalcule strongly resembling some of those found in stagnant water in this country. He says: "I have several times succeeded in liberating simultaneously from the egg as many as twenty embryos, and watched their movements in a drop of water under the microscope. No sight can convey, either a more vivid impression of the activity of animal development, or a more complete realisation of the energy of parasitic life. It is an interesting display, but its general attractiveness is certainly not increased by the unavoidable reflection that the tissues and fluids of the human body may readily become the abode of these lowly animals."

Experiments were made to determine whether the parasite may be developed from ova introduced into the body. From negative results, and from other facts, the author concludes that, as a rule, this does not happen, from some cause which prevents, or too long retards, the liberation of the embryo from the egg. He is, however, inclined to think that, if the hatching be timely effected, or if the liberated embryo be artificially introduced into certain parts of the body, more especially the bloodvessels, its further development into the adult parasite may proceed.

As to the primary mode of invasion, the author mentions the fact that the colonists of the infected districts are early attacked by a peculiar kind of boil, which passes into an indolent ulcer, and which, ultimately healing, leaves a large and indelible scar. He thinks it very probable that these boils result from the insertion of ova beneath the skin in the act of bathing, and that the subsequent pro-

gress of the ulcer, and the infection of the genito-urinary organs, is due to the liberation of embryos (which may readily occur upon the naked surface of an ulcer), and their convection or ascent to the pelvic organs along the veins that lead to them.

The PRESIDENT spoke of the great value of the researches which Dr. Harley had, now for the third time, communicated to the Society; and said that, possibly, other diseases attended with hæmorrhagic or serous discharge from mucous membrane, might be due to parasitic invasion.

Mr. JOHN WOOD inquired whether there had been any opportunities of post-mortem examination of the prostate in these cases, and whether the parasite invaded any other part of the urinary organs.

Mr. FAIRLIE CLARKE suggested the application of the solid nitrate of silver to the prostatic portion of the urethra.

Dr. SYMES THOMPSON inquired as to the extent of country in South Africa over which the disease prevailed.

Dr. WEBSTER inquired whether the disease prevailed chiefly in high or in low localities. He believed that loss of blood was more common at elevated than at low situations, and under low barometric pressure. He inquired also the state of the water.

Dr. CHURCH asked whether anything was known about the stages of development of the parasite; and suggested that it might require two hosts.

Dr. HARLEY, in reply, said that he hoped shortly to receive more detailed information from a practitioner in Natal about the post-mortem appearances, and also about some other points that had been raised. The parasite was sometimes located in the pelvis or veins of the kidney; and, when thus situated, its embryos were apt to form the nuclei of oxalate-of-lime renal calculi. The disease was chiefly seen in the district of Port Elizabeth, where the water was said to be "brackish," and was almost confined to stations within twenty miles of the coast, and elevated not more than 300 feet above the sea level.

A CASE OF TRAUMATIC TETANUS; RECOVERY AFTER THE REMOVAL OF A FOREIGN BODY FROM THE WOUND, AND THE ADMINISTRATION OF CHLORAL.

BY GEORGE JOHNSON, M.D.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL.

H. N.—, aged thirteen, a newspaper boy, was admitted into King's College Hospital on the 24th June. Three weeks before, whilst getting over a hedge, he ran a sharp piece of wood into his thigh. He stopped the bleeding by tying a handkerchief round the thigh. The wound soon healed, and he is confident that no portion of the pointed wood remained beneath the skin. About nine days before his admission the lower jaw began to feel stiff; this gradually increased until it interfered with mastication. Then the muscles of the trunk and limbs began to be affected with spasm, and he came into the hospital.

On his admission he was well nourished, with a healthy colour. There was a peculiar expression of the face, resulting from spasm of the occipito-frontalis, corrugator supercilii, and other facial muscles. He could separate the incisor teeth only to the extent of about half an inch. There was some rigidity of the abdominal and erector spinæ muscles, and movement of the body occasionally increased, this rigidity to a painful degree of spasm, the pain being especially severe in the back. The spasm also implicated the muscles of the legs. The temperature, pulse, and respiration were normal.

At the upper third of the thigh there was a cicatrix about half an inch long, the scar and the tissues beneath felt unusually hard, and pressure caused considerable pain. It was suspected that there might be some foreign body beneath the skin, therefore chloroform was given, and an incision made through the cicatrix by the house-surgeon, Mr. Whitmore, who discovered and removed a small dark mass; this proved to be a piece of woollen stuff from the boy's trousers, which had been driven in, and lodged beneath the skin. The piece of wool was about the size of a small pea. A poultice was applied to the wound, and during the next twenty-four hours no medicine was given. There was continuous rigidity of the muscles, with occasional paroxysms of spasm and pain. He was now ordered to take fifteen grains of chloral hydrate, at first every four hours, afterwards at longer intervals. Between

the 26th June and the 9th July he had twenty-four doses of the chloral, amounting in all to 360 grains. The symptoms gradually subsided, the spasms became less frequent and less severe, the last slight attack of spasm occurring on the 13th July; the wound healed, and he was discharged cured on the 27th July.

Dr. CHOLMELEY inquired whether tetanus had any tendency to wear itself out, and to terminate in recovery, if the patient were kept alive sufficiently long.

Mr. SPENCER WATSON related the particulars of a case of tetanus that had been under his care in the Great Northern Hospital, and that had recovered under the use of chloral in full and frequently repeated doses. The disease followed a wound of the tongue by a splinter; but the splinter had been removed prior to the occurrence of spasm.

Mr. BRUDENELL CARTER inquired whether the state of the circulation in the optic nerve had been observed by the ophthalmoscope during the chloral narcotism.

Dr. GEORGE JOHNSON briefly replied. He dwelt upon the importance of the removal of the piece of cloth, and admitted that he had neglected to make ophthalmoscopic observations.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOV. 25TH.

MR. HENRY LEE, VICE-PRESIDENT, IN THE CHAIR.

Mr. BRUDENELL CARTER read particulars of a case of presumed Injury to the Ciliary Nerves from a Blow, and exhibited the patient, a little boy seven years of age, who had received a blow from a bat upon the right eye eight months previously. Enormous dilatation of the pupil followed the injury. The ophthalmoscope showed that the choroidal pigment around the optic nerve entrance (which formed a well-defined ring in the uninjured eye) had been scattered by the shock, and that an annulus of choroid round the nerve, and reaching nearly to the yellow spot, was undergoing atrophic changes. The inference was that the coats of the eyeball in this region had been strained and injured by *contre-coup*, and that the ciliary nerves had participated in the injury at their entrance into the globe. The dilatation of the pupil was greater than paralysis of the filaments from the third nerve would explain; and seemed to suggest active irritation of the sympathetic filaments of the dilatator. There was no impairment of vision, and no paralysis of the external ocular muscles.

Dr. BUZZARD, for Dr. Martin Payne, read a paper on Tertiary Syphilis.

Mr. DURHAM related a remarkable case of Spontaneous Fracture of the Femur. When first seen by him in March, 1867, the patient, a professional man, aged forty-four, was seated, half-dressed, in an easy chair. He thought himself capable of walking about, and was surprised to find this impossible. The right femur was found broken at the junction of the upper and middle thirds, the limb being shortened by three inches. Three months previously the patient had fallen downstairs and hurt his thigh; but he soon felt nothing of the injury, which he thought a trifling one. Seven weeks later, however, he began to have aching pain in the thigh, which was considered and treated as neuralgic; and when this had lasted three weeks, he felt, on going to bed one night, a sudden increase in the pain, and fell on to his bed in great agony. Next morning he could not move the thigh, which was much swollen. He was quite unconscious of having subjected the limb to any sudden strain. After a few days the swelling and pain diminished, and he got up, but could not walk about; and it was about ten days after that Mr. Durham, visiting him for the first time, in consultation, found his thigh broken. Under treatment the bone united; in the course of four months the patient could move about; two months later he returned to professional work. He remains quite well. Mr. Durham thought it probable that at the time of the fall some injury of the bone had taken place, which had been followed by gradual interstitial degeneration and absorption of bony tissue, instead of healthy repair, leading to spontaneous fracture of the bone. The patient had, it seemed, been subjected to great worry and wear and tear of brain, and Mr. Durham suggested, as a topic for discussion, the relation which may

exist between overwork or excitement of brain and defective nutrition of bone.

Mr. CHRISTOPHER HEATH quoted a case that had come under his own observation, asked Mr. Durham why iodide of potassium was given, and hinted that phosphates would probably have been more useful.

Mr. CARTER, Mr. CALLENDER, Mr. GASCOYEN, and Mr. HULKE joined in the discussion by relating cases that had occurred in their own practice, all tending to show that fracture of the femur may occur without immediate loss of motive power.

Mr. DURHAM, in reply, said that there was, in his case, no evidence as to syphilis, and that iron and iodide of potassium were given because physicians thought these medicines proper. He remarked upon the fact that in lunatic asylums fractures of this kind frequently occurred, and that in all such cases there existed *mollities ossium*, or waste of brain-tissue, with impaired nutrition of the bones.

Dr. WILTSHIRE narrated five cases which he thought presented the characteristic symptoms of Paroxysmal Hæmaturia—namely, rigors, yellow discoloration of the skin, and dark urine, the latter containing the red colouring matter of the blood, albumen, oxalates, lithates, &c. Observation had led him to regard the yellowish discoloration of the skin as the most constant and important symptom, and he advanced the hypothesis that it was due (like the dark urine) to disintegration of the red corpuscles of the blood, the disintegrating agent being a volatile organic acid, probably a fatty acid, which was thrown back into the system by chilling of the skin in persons predisposed to the affection. He supported this view by a reference to the effect of venoms on the blood, and especially when the virulence of these poisons was intensified by the addition of volatile organic acid. He also cited the discolorations of the skin which are seen in pyæmia, Addison's disease, chlorosis, certain forms of so-called jaundice, as *icterus neonatorum*, sudden suppression of normal discharges, as the sweat, menses, &c., and referred to the greenish hue of unhealthy women at the catamenial period, as evidence that chromatic changes might occur in the skin as the result of auto-genetic poisoning. He argued that the elimination of the colouring matter of the blood by the kidney was not an essential symptom, and adduced evidence in support of this view. He thought that, clinically, the scope of the disease should be widened, the pathological process comprehending, he believed, a considerable number of affections not hitherto classed with it. Believing the disease to consist essentially of a process of diffused hæmatolysis, and arguing that, as a consequence, the names hitherto employed—namely, intermittent or paroxysmal hæmaturia, hæmatinuria, and cruenturia—only expressed a symptom, and that neither a constant or necessary one, Dr. Wiltshire, although averse to the invention of new names, proposed "*paroxysmal hæmatolysis*" as a more fitting and expressive one.

The CHAIRMAN said that in all similar cases that had come under his notice, stagnation of blood occurred in the large vessels.

Dr. GREENHOW remarked emphatically that, though the paper just heard was exceedingly long, the author had entirely spoiled its value by failing to record in a single case any scientific examination of the urine. Such examinations were all-important. He added that it was an invariable rule to find oxalate of lime crystals.

Dr. GLOVER subscribed to the opinion of the last speaker, and denounced the loose construction of the paper. He was not at all sure that the appearances in the urine might not have been owing to bile-pigment, or lithiæal deposits.

Dr. DICKINSON made some brief observations as to the connexion of the disease with ague and with the pathology of the spleen, and said that the malady could usually be cured by quinine.

After some observations by Mr. HEATH, Dr. WILTSHIRE replied briefly, remarking that the urine had been examined, Dr. GREENHOW retorting that no particular description of it had been given to the Society.

DONATIONS.—"W. T. B." has given £1000 to the Victoria Hospital for Sick Children, Queen's-road, Chelsea. "G. M. E." has given a second £1000 to the Cancer Hospital, Brompton and Piccadilly.