

the kidney only in small quantity, is now attracted largely to its elementary parts, the epithelium cells, and accumulates in them to overloading. These gorged cells, collecting in the uriferous tubes, press upon the capillary plexus of their walls, and throw back the blood on the Malpighian tufts, causing congestion or rupture of them. And this is the third stage, in which the urine becomes albuminous, and other signs appear, which have been so well pointed out by the extraordinary clinical research of Dr. Bright and his followers. A strong feeling had been growing up among practical men as to a close connection between this disease and scrofula. The author's statements respecting the artificial production of the disease in animals bore upon this subject; but further research was necessary before the exact nature of the connection could be determined.

Dr. Bright eulogized the paper as showing great industry and perseverance. It was a paper of the greatest interest, and to himself more especially so. He could not vouch for the accuracy of all the conclusions come to by the author, but they bore the appearance of the greatest probability—they appeared like truth. Should future observers confirm the correctness of Dr. Johnson's investigations, a most important vacuum in regard to the disease under discussion would be filled up, and a more rational line of treatment would doubtless be the result.

18. *Chorea and its consequences.*—(*Prov. Med. & Surg. Journ.*, Nov. 12, 1845).—Dr. BRANSON, in a paper on this subject read before the Sheffield Medical Society, Oct. 9th, 1845, points out the frequent occurrence of endocarditis (most frequently affecting the mitral valve) during an attack of chorea. The cases, he observed, cannot be classed with those in which disturbance of a distant organ is merely symptomatic of mischief situated in the nervous centres, inasmuch as the affection alluded to is organic and not functional; a mitral murmur existed, and a mitral murmur is never inorganic. It may be urged that continued functional disturbance may lead to organic disease; that the heart, like any other muscle, may be affected with chorea, and that this continued disturbance may at length give rise to inflammatory action. But what evidence is there of functional disturbance prior to the existence of the abnormal bruit? None whatever. There is no irregularity of pulse, no tumultuous action of the heart, in short, the equable character of the circulation is singularly contrasted with the violent jactitations of the patient; besides, the heart may be functionally deranged for a very long period without giving rise to any organic change, and, even supposing such a structural change to occur, hypertrophy, and not mitral mischief, would be the more probable result.

Since the commencement of 1843, Dr. B. has treated twenty-one patients affected with chorea, and of this number nine suffered more or less severely from heart disease. Dr. B. gave the details of several cases, and concluded his paper with the following propositions:—

1st. The necessity which exists for examining the heart constantly in all cases of chorea, since nine out of twenty-one consecutive patients affected with chorea, suffered more or less severely from heart disease.

2d. That disease of the heart is frequently the consequence and not the cause of chorea.

3d. That the heart affection which supervenes in chorea, is often extremely insidious, causing little distress at the time, and only to be detected by a stethoscopic examination, and yet the seeds of future mischief having a direct tendency to shorten life are then and there sown.

4th. That the valvular souffle heard in chorea is the result of inflammatory action, and does not depend, as in anemia, upon an altered condition of the blood—the inorganic murmur in anemia being heard invariably with the first sound, and loudest over the *aortic valves*, and not at the *apex* of the heart.

5th. That the endocardium covering the mitral valve is much more frequently the seat of inflammatory action, in simple chorea unaccompanied by rheumatism, than either the pericardium, or that portion of the endocardium which covers the aortic valves.

6th. That unless the heart affection be attacked in its very earliest stage, little hope remains of restoring the valve to a healthy condition, inasmuch as at the time the bruit is first heard there must exist a deposit of lymph upon or beneath

the endocardium covering the valve, sufficiently great in amount to prevent its perfect closure; and unless this deposit of lymph is of very recent formation, even the long-continued use of mercury and counter-irritation, our chief, if not only hope, will be of little avail in promoting its absorption.

7th. That mercury is more influential in promoting the absorption of lymph deposited on the pericardium, than on the lining membrane of the heart.

8th. That when the pericardium is affected in chorea, the rheumatic diathesis is more strongly marked than when the endocardium is the seat of disease.

19. *Softening of the Pons Varolii.—Lead detected in the Cerebellum.* By THOMAS INMAN, M. D. James M'Ginn, aged 24, painter, of robust frame. admitted into the Liverpool Workhouse, with sloughing of the nates, August 29, 1844.

States that he was always a healthy man (with the exception of an attack of painters' colic) till four months ago, when he was suddenly seized while at work with giddiness, dimness of sight, pain in the forehead, weakness and numbness in his lower extremities. He had great difficulty in getting down the ladder on which he was and reaching his home, and next day was unable to leave the house. These symptoms increased in severity, and at the end of a fortnight he had lost all command over the left leg and thigh. The left arm likewise felt very weak, but never became paralytic. Pain in the head has never left him. His mind and memory have been gradually failing since the commencement of the disease.

On admission, the muscles of the face were unaffected; both pupils dilated, but obedient to a strong light; tongue protruded slightly towards the left side. The left arm is weaker than the right, but he can grasp pretty firmly with both. The left leg is completely paralyzed and almost deprived of sensation,—a hard pinch or prick being necessary to excite it. The right leg is weak, but he has command over it, and its sensation is tolerably perfect. No reflex motions excited by any irritant. There is no priapism. Urine and feces passed involuntarily. Complains of dull heavy frontal pain. The mind is weakened, the memory impaired. There is an appearance of hebetude like that in typhus. The tongue is dry and brown; the teeth covered with dark sordes; the speech is hesitating; the enunciation imperfect. Pulse 96, soft; respiration easy, abdominal. No delirium or coma; sleeps well; appetite bad. There is no blue line round the gums. Says he never had syphilis, or any injury of the head. There are extensive sloughs over the sacrum and trochanter, which have not as yet begun to separate.

Before he came into the house he had been cupped, bled, and blistered, but without relief. On his admission, a long issue was made over the sagittal suture and kept open by peas, and wine freely administered. Under this treatment he rallied for a time. The sloughs separated; the healing process commenced; the tongue became moister and cleaner; the pulse fell to 60, and the frontal pain abated. On the 13th of September, however, he was seized with severe pain in the stomach and vomiting; was found pulseless; the trunk and extremities cold and covered with a clammy sweat; his face red and flushed, but quite cold. His senses, were, however, unaffected. Stimuli had no effect upon him, and he died in a short time apparently of exhaustion.

*Sectio cadaveris* 24 hours after death.—Face and scalp greatly congested; calvarium dense and thick; membranes greatly injected, but not thickened or opaque. Brain was extraordinarily firm; lateral ventricles contained about four ounces of transparent serum, and their lining membrane was slightly rough. A good deal of fluid was found also at the base of the brain. No other lesion was detected till the *Pons Varolii* was divided, when a number of small foramina were noticed filled with softening matter, more numerous on the right than the left side, and giving the idea, when they had been subjected to a stream of water, as if they had been made by worms. On making a section on the right side, a cavity was found large enough to hold a small pea. The white and gray parts of the pons were distinct, and both equally affected. The rest of the pons seemed perfectly healthy.

On incinerating the cerebellum, treating it with nitric acid, and testing it by iodide of potassium, sulphuretted hydrogen, and metallic zinc, I found that it contained a very distinct quantity of lead, which I was able to exhibit deposited upon