

Commentaries on Insanity. By D. F. TYERMAN, Esq.,
Middlesex County Lunatic Asylum, Colney Hatch.

Defective information, relative to the previous history of cases received into lunatic hospitals, especially perhaps those of Middlesex, operates as a discouragement to any attempt at placing them upon record.

One main object of the following papers will be the faithful, although brief and general description of the *post mortem* appearances in cases of lunacy. Whenever obtained, a brief outline of the previous history will be sketched, with notes of the antecedents, and cause of death. The conclusions, in the form of corollaries, arrived at upon a review of the cases, and such comments as may appear to elucidate their nature, will, in a more or less brief form, be appended. It has been frequently found, when the patient has succumbed to the disease, and the mental storm is over, that the surviving friends have shewn a disposition to fill in the lights and shadows of a suppressed history; some points, indicated by the *post mortem* appearances, and possibly supplying the explanation of many an emotion and event, not only of a recent date, but of years long passed away having been suggested to them. Synthetic examination may, it is hoped, assist in clearing away some of the clouds in which the history of the patient has been enveloped, and promote safe deductions, analogous to those arrived at, in cases of legal difficulty, by the cautious pursuit of circumstantial evidence.

CASE 1.—Mania: Subsequent dementia: General paralysis of the insane. P. H., aged 41, a widower, by trade a tailor, admitted in July, 1851, exhibited imbecility of mind, with incipient symptoms of general paralysis; amongst which were imperfect articulation, and partial loss of power in the lower extremities, indicated by insecure progression, and dragging of the legs. He was competent to reply coherently to the common enquiries, and expressed himself satisfied and happy at the prospect of receiving the comforts of the hospital, and of working at his trade without care and anxiety, probable, although not recorded, inciting elements of his malady. He pursued his trade contentedly at the workshop, until disabled by the advance of the disease, the nature of which was further indicated by tremor of the tongue, increased difficulty of articulation, and gradually supervening utter helplessness, and prostration. He died in September 1853, twenty-six months after his admission.

Autopsy. The brain substance was pallid: the middle commissure vascular. The lining membrane of the ventricles, and especially the fourth, presented a granular, or villous appearance. There was circumscribed disorganization of the anterior portion of the right corpus striatum, with surrounding rusty discoloration. Abundant effusion at basis cranii, necessarily causing pressure upon the cerebral nerves, and those of the medulla oblongata; effusion into the ventricles. Thorax: Apices of mitral valves of the heart thickened by old endocarditis. Abundant fibrinous coagula in left ventricle and aorta. Old cretaceous tubercle of left lung, and a cicatrix on its surface. Consolidation, and evidence of old inflammatory action in dorsal portion of the right lung. Abdomen: Liver enlarged, pallid, and of dense structure. Kidneys degenerated, granular; small vesicles appearing on their surfaces. Tubular structure scarcely apparent in the right kidney. Spleen large. Intestines and other organs pallid.

Comments. In default of a history of many of the antecedents of this case, the pulmonary changes, the hard cirrhotic liver, the heart affection, and the degenerated state of the kidneys may be regarded as the index to the previous habits of the patient, nailed, as it were, to his shop-board, without healthful exercise and recreation; plying incessantly his needle in a cramped posture, and habitually resorting to the stimulus of alcohol to arouse his flagging energies. The loss of wife, and, perhaps, the uncertainty of regular and sufficiently paid occupation, may be clues to the filling up the other parts of the picture.

CASE 2.—Dementia. Decay from ramollissement of the brain, and general disease: exhaustion without diarrhoea. No previous history. R. W., aged 28, unmarried, by trade a tailor, was admitted in November, 1851, and died in September, 1853. Residence twenty-two months.

Autopsy. Brain weight, without fluid, 49½ oz. avoirdupois. The entire substance of the organ was in a state of ramollissement: the cortical substance injected, and of a pink colour. Ecchymosis of the pia mater on the upper surfaces of both hemispheres. There was serous effusion at the basis cranii. The membranes were neither opaque or thickened. Granular deposit in plexus choroides, with adhesion of right portion to the wall of the ventricle: and there was a yellow cyst, easily separable, containing a pale fluid. In the anterior cornu of the right ventricle was a minute adhesion of its opposite walls, the result of inflammatory action. Thorax: Scattered tubercles in both lungs, which were emphysematous, presenting spots of pulmonary apoplexy. Scattered spots of yellow lymph on pleuræ, and margin of posterior lobe of right lung. Fibrous shreds of lymph on pericardium and surface of heart. Abdomen; Minute purulent deposits, size of pins heads, in kidneys, the surfaces of which presented stellate injection. Liver congested, and its sinuses enlarged. Mesenteric glands enlarged; not otherwise changed.

c³

Comments. Although there is no history of the above case, yet the evidence of severe excitement of the kidneys, the congested liver, and tuberculous emphysematous lungs, &c., suggest causation of disease analogous to that presumed to have existed in the previous case. The softened condition of the brain, and consequently diminished vis vitæ, rendered the other organs a helpless prey to the diseases to which they were disposed. The serious changes in the various organs assist in shewing the connection of mental with physical disease.

CASE 3. Chronic Mania : general inflammatory disease. J. T., aged 54, married, by occupation a labourer, admitted in May, 1853, was in apparently moderate general health ; his conversation was incoherent, extravagant, and characteristic rather of cheerfulness than melancholic tendency. He had been an inmate of other asylums, one of which was in Ireland, and the probable duration of disease was many years. Under the treatment : consisting of warm baths, mild antimonials, &c., the first excitement was controlled, and he pursued agricultural labour for several weeks, until an unfavourable change in his state became evident. He appeared pallid, and suffered vertigo from cerebral congestion. Petulency of disposition, anorexia, unrelieved by stomachics, and gradually prostration with febrile commotion, supervened, and the fatal issue, fourteen weeks from his reception, was preceded by accelerated respiration.

Autopsy. Brain weight, 48½ ozs. avoirdupois. The substance of the organ pallid : lymph of an icteric hue, was effused upon the arachnoid, and the dura mater also had an icteric hue. There was commencing disorganization of the cortical substance of one convolution of the left hemisphere, and there were ecchymosed spots in the substance of other convolutions. Fine vesicular appearance on the lining membrane of the ventricles, and especially of the fourth. No remains of the middle commissure, which had been absorbed. Effusion of clear fluid in the ventricles, and at the basis cranii. The plexus choroides was vesicular, and had an icteric hue. Thorax : There were circumscribed spots of pneumatic consolidation in both lungs. All the valves of the heart were opaque, and thickened by old rheumatic endocarditis. Cortical portion of kidneys dark and congested, the fat of the kidneys (and the body generally) presented an icteric hue. Liver dark and congested, the gall bladder distended, but the gall ducts were pervious, and rather large than otherwise. The contents of the intestines did not manifest deficiency of bile.

Comments. The disappearance of the soft commissure, the morbid state of the valves of the heart, encouraging blood stasis, engorgement of liver, absorption of bile elements into the blood, and the other morbid changes indicated the chronicity of physical disease, as well as the habits and exposure of the Irish labourer ; and this autopsy appears a satisfactory substitute for the absent history of

the case. The partial or total absence of the commissura mollis (middle commissure of the brain) has long appeared to me an important pathological indication, and I first noticed the process of the morbid change when engaged in the treatment of the diseases of infants and children. On the autopsy of an infant, deceased of hydrocephalus, the walls of the lateral ventricles were, by the abundant accumulation of the aqueous fluid, forced considerably apart, causing a partial central rupture of the commissure. Nature was, however, making an attempt at reparation, and blood exudation had taken place at the points of the broken band or cord of cerebral matter. At Colney Hatch we have occasionally witnessed its partial, but far more frequently, complete rupture; and, in some instances, the bases of the band or cord (for its form varies) have remained upon the more or less widely separated walls of the lateral ventricles. These appearances have been more frequent in cases of general paralysis, than in any other form of disease.

CASE 4.—Mania Epileptica, death by Asphyxia. E. K., aged 32, unmarried, a labourer, admitted in November, 1851, had long previously been the subject of epilepsy, often succeeded by maniacal excitement, and had been the inmate of, at least, one other asylum. He died suddenly twenty-two months after his admission, during the night, and was found lying upon the pillow, the mouth being open, and filled with frothy and sanguineous fluid.

Autopsy. Purplish discolouration of the body, which was well nourished. Scalp not much congested, except *anteriorly*. The skull was very thick, and the calvarium heavy. There was a large, irregular, and rough bony deposit in the falx cerebri. The membranes were somewhat opaque; and abundant serous fluid was effused into the subarachnoid cellular tissue, also at the base of the brain; and a moderate quantity (tinged) into the lateral ventricles, the lining membrane of which presented a vesicular appearance. The middle commissure was absent. The brain substance was intensely injected, and the cortical substance was highly vascular, and of a pink colour. There was a minute crystalline deposit in the substance of the upper part of the medulla oblongata. Weight of brain 57 oz. (hypertrophied?) Thorax: The bronchi were intensely congested, contained sanguineous and frothy mucus, and the right pleural cavity contained tinged serum. The lungs were congested, but crepitant. Heart, 14½ oz. Left ventricle large, hypertrophied, empty; the fluid blood having been discharged during the autopsy. All the blood of the body fluid. Abdomen: Liver intensely congested, the portal vessels being gorged with fluid blood. Kidneys also intensely injected, blood exuding from their surfaces on removing the investing capsules. Spleen, pancreas, and small intestines injected with blood. The organs, although congested, generally healthy.

Comments. Fluidity of the blood appears to be its invariable

condition, on the autopsy, in cases of sudden death by epilepsy, as by lightning and other causes acting instantaneously, or nearly so.

The great weight of brain, the thickness and weight of the cranial bones, the hypertrophied state of the left ventricle of the heart, the healthy, muscular appearance of the stomach, &c., may justify the classification of this amongst that large division of epileptic cases, in which the nutritive functions are in excess. Dr. Radcliffe, in his ingenious and interesting work, views the majority of cases of epilepsy as characterized by anæmia and nervous debility; and the convulsions as the result of such debility. *That paralysis of the nerves of the respiratory class takes place in the paroxysm* I have had, for a long time, no doubt; for, however violently the muscles of animal life, the strictly voluntary, may be convulsed, immobility of the thoracic walls, is one of the chief phenomena of the paroxysm. Brown-Sequard attempts to explain part of the phenomenon by assigning to the blood-vessels of the brain a state of paralysis; I presume by temporary failure of power of the sympathetic filaments with which they are supplied. I submit, however, that the phenomena are consistent, and more readily explained by a sudden paralysis, the result of immediate and intense congestion of the pons varolii, medulla oblongata, and, indeed, the brain generally, and consequently of the pneumogastric and other principal nerves of respiration. The first symptom of the subsidence of the paroxysm is a recovery of thoracic muscular function, a heaving of the paralyzed chest, when air is allowed freely to enter, and decarbonize the blood of the gorged lungs. The heart and brain are then simultaneously relieved of their carbonized and overcharged contents, the rapidity and labouring state of the pulse is mitigated, hæmorrhages from the congested vessels of the nose, mouth, and bronchi, or from vessels accidentally wounded by the falling of the patient, cease, and the storm is, for the time, at an end. Should the converse of this restorative process happen, and the nerve paralysis continue, the patient infallibly dies of the affection variously termed congestion of the lungs, paralysis of the lungs, paralysis of the pneumo-gastric nerves. With reference, however, to nutrition, there can be no question that a very large class of epileptics manifest abundant evidence of its activity; as, for instance, by the very rapid healing of the severe contused and lacerated wounds to which they are so particularly liable; and in their powerfully muscular and well nourished frames. With regard to the opposite class, viz., that characterized by anæmia, debility, prostration threatening a fatal issue, I submit that the phenomena may be attributable to paralytic innervation of the respiratory tract occurring by paroxysm.

With respect to the untoward event of an epileptic patient being found dead upon his face in the bed, much is to be said involving considerations relating to the construction and management of asylums, and especially to the system of dormitory accommodation,

insolving efficient night watching. There is no question that sudden death from epilepsy will occur, whether the patient be in a prone or supine position, and that harmless fits do constantly occur whilst the patient is in the former posture; but there can be no less doubt as to the advisability of incessant nocturnal, as well as diurnal vigilance, over this afflicted class of patients.

The little crystalline body found in the substance of the upper portion of the medulla oblongata was an interesting discovery in the above case. We have met with foreign bodies of much larger growth in epileptics, a large cholesteatomatous tumour having in one case (of a female) encroached upon the pons varolii and destroyed, by absorption, several nerves—the fifth, third, seventh, and eighth, besides a portion of the tractus opticus.

CASE 5.—Dementia: general paralysis of the insane: gradual decay from exhaustion. R. H. B. aged 39, widower, by pursuit a commercial traveller, admitted in July, 1852, was reported to have been insane for eighteen months: no cause of the disease assigned, or history furnished. He was the subject of general paralysis, and was stated to be disposed to jump from the windows, and to destroy his clothes. Progressively increasing debility, pallor and attenuation of the body were among the chief characteristics of the hopeless case up to its fatal termination, 14 months after his admission.

Autopsy. Weight of brain, 44½ oz. The inner surface of the left half of the cavarium and the corresponding bones at the base of the skull vascular and, quasi, worm eaten, and corresponding portions of dura mater vascular. Spread over the arachnoid membrane, covering the hemisphere of the corresponding side, was a dense, dark coloured, false membrane, covering the anterior and middle lobes, thickest in the upper portion, corresponding with the longitudinal fissure. There was extreme injection of the vessels of the membranes, and the pia mater was adherent to the cortical substance. The lateral ventricles were moderately enlarged—distended by fluid, the middle commissure was absent, and there was effusion to the amount of two ounces, at the base of the brain. Thorax: Right lung hepatized, containing tubercle and old gray pneumonic deposit; left lung free from disease. There were adhesions of the costal and pulmonary pleuræ. Abdominal organs not obviously diseased.

Comments. In the absence of a history of this case, the active vascular action, which led to the pouring out of an organizable deposit between the dura mater and the arachnoid, and the eroded state of the cranial bones (mercurialism?) would indicate severe and repeated attacks of maniacal disease, or active delirium of long date. These false membranes have been not unfrequently met with, and chiefly in cases of general paralysis of the insane. They have been very loosely attached to the membranes; were not perceptibly vascular under the microscope; and sometimes were discoloured by blood pigment.

CASE 6.—Mania, fatal from dysentery a month after admission. W. W. aged 32, married (his wife living) by occupation a labourer, admitted in August, 1853, had been insane, under the first attack, for three weeks previously, the disease having occurred suddenly, and without any cause known to the friends. He had, however, four years previously, suffered from cholera, and since that period, annually from diarrhœa. On his reception, his genuflexions and certain observations indicated a state of morbid religious extasy: and he stated that he had two wives, one from her coffin, and one already decapitated: that a poisoned gooseberry had been given to him; that he had possessed a church and he would preach. A fortnight before his decease, dysentery set in, and the varied treatment by mercurials, opium, &c. was ineffectual, being partly negatived by his uncontrollable restlessness and destructive tendencies.

Autopsy. The chief morbid appearance in the cranial cavity was an abundant effusion of serous fluid at the base of the brain, and into the lateral ventricles: the brain substance itself was congested. Abdomen: from the cœcum downwards the colon was in an intense state of congestion, the mucous membrane being intensely red, thickened, and studded with ulcers.

Comments. Chronic, rather than acute diseases of the abdominal and other organs would appear occasional, efficient, exciting causes of insanity; but in persons predisposed to the disease by hereditary or acquired tendency, accidental attacks of illness, whether mild or severe, may operate as immediate exciting causes. The imperfect history of this case precludes a safe conclusion. In the first two or three years after the opening of Colney Hatch, dysentery was rife in its wards, but has been rare and scarcely fatal since the adoption of an improved dietary, and the substitution of solid for certain liquid rations. In the treatment of this affection, mild mercurials, combined with *sapo hisp.*, opium, and *ipecacuanha*, together with a farinaceous and milk diet, were found the most efficacious remedies.

(To be continued.)