nearly twelve years—the size of the cranium increased two inches in circumference and one inch over the vertex from side to side. This is not a great increase, and the head was certainly more disproportionate to the size of the rest of the body at the time of admission than at any subsequent period. It is singular that none of the special senses were in this patient absent or impaired, as is the usual case with most hydrocephalics, when at least one—generally more—of the special senses is altogether wanting.

It is worth notice that the fluid in the ventricles was the same chemically as that found in the other parts of the body; that is, it was nothing more than an ordinary dropsical effusion, and which might therefore be produced by the same cause. When this patient commenced to be hydrocephalic, whether it was before the commencement of organic disease of the kidneys or not, there is unfortunately nothing to show.

Case of Syphilitic Insanity. By Dr. Batty Tuke.

(*Case of B. A., continued from page* 560, *Vol.* xix.)

February, 17th.—Patient was suddenly seized this morning while at breakfast with incessant hiccup, which lasted for about three minutes or so; his fork then dropped out of his left hand, and he appeared stupid, gazing vacantly at his plate, but continuing to put food to his mouth with the right hand, though he was unable to masticate, or even grasp it with his lips. He was immediately taken to bed, and the following is a condensed account of his condition at 9.30 a.m., or half an hour after the seizure, the symptoms all becoming gradually developed up to that time.

Motor power of left arm and leg was much impaired, the arm being more affected than the leg; patient was unable to walk or use the left arm, though he could move both extremities a little. The face was very much drawn to the right side, the tongue was protruded to the left, the eyelids of the left eye remained half-closed, and offered no resistance when separated, while those of the right eye were tightly closed, and strongly resisted any attempt made to separate them, so that the condition of the pupil could not be ascertained. The left cheek was blown out at every expiration, and the lips of the left side remained motionless, while those of the right side were moved when patient attempted to speak. The power of deglutition was impaired; patient could only mutter indistinctly. Sensation of the left side of face was completely lost, and that of the left arm and leg was much impaired; sensation of the left foot remained normal, as on being touched patient drew up his leg a little, or moved it away from the

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irritation. Patient was unconscious, breathing inclined to be stertorous. Pulse 80, regular, of fair strength.

11.30 *a.m.*—The muscles of the left arm were not flaccid (as they were early this morning, when the arm could be moved about without resistance), on the contrary, the fore-arm was semi-flexed on the upper arm, and strongly resisted when extension was made. The finger could be moved about freely, as also could the hand. The muscles of the left leg were in much the same spasmodically contracted state. Temp. right axilla, 98.4; left axilla, 97.2; the left side felt distinctly colder to the touch than the right.

4 *p.m.*—The spasmodic contraction has extended to the muscles of the left fore-arm, as the hand and fingers now resist movement being made. Patient has been troubled with hiccup and occasional vomiting. Urine and fæces passed involuntarily in bed.

10 *p.m.*—Patient remains in much the same unconscious state; the spasmodic condition of the muscles is the same. Pulse 84.

February 18th.—Patient has had a restless night, vomiting continues at intervals; he is unable to take much nourishment, as power of deglutition is so much impaired. Pulse 84, regular. Patient mutters indistinctly, but appears a little more conscious than yesterday. Motor power is much the same, and the spasmodic condition is present, though in a less degree. Face is not so much drawn to the right side, but the cheek is blown out in the same manner at every expiration. Sensation of left side of face is completely lost, while that of the right side is abnormally increased. Temp. right axilla, 98 F.; left axilla, 99 F.

Vesp.—Patient is a little more conscious, otherwise much the same.

February 19th.—Patient has passed a restless night, the vomiting continues at intervals. Pulse 88, weaker than yesterday. Breathing is deep, but in no way stertorous. The motor power of left leg is improved, and patient can draw it upwards in bed of his own accord. The spasmodic condition of the muscles is not so well marked, and the left arm lies at the side with only slight power of motion.

February 20th.—Patient has slept at intervals during the night, the vomiting has ceased, and he is able to take more nourishment, though only in a fluid form. He is more conscious this morning, and has asked for "water," &c., though the pronunciation is very indistinct. Pulse 80.

Vesp.—Patient has had a quiet day, and as the power of deglutition has improved, he has taken more nourishment than he has ever done since his seizure. Vomiting has entirely ceased. He has been much more conscious, and able to speak better; thus he said, "useless," pointing to the left side, and then placed his hand on the right side of his head when asked where he felt pain; he was also able to recognise his relations to-day, and told them he felt very ill. There is now marked spasmodic contraction of the muscles of the left arm and leg, also of the muscles of the back of the neck, and those connecting the left arm to the trunk. This condition began about 6 o'clock this

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evening, with a slight tremor in the affected muscles, and gradually increased up to the present condition. Patient keeps jerking his head backwards into the pillow; the arm and leg are also jerked about to the extent that the bedclothes are often thrown off his body and frequently over the bed.

Pulse 88, regular. Patient is not now so conscious as during the day.

February 21*st*.—The spasmodic condition lasted until about 2 a.m., when it gradually subsided. The left extremities are now more completely paralysed than ever they have been, and the sensation is entirely lost. Patient is unconscious. From this time he gradually became weaker, dying in a comatose condition about mid-day of the 23rd February, 1874.

Post-Mortem Examination 24 *Hours after Death*.—On removing the scull cap in the usual manner the dura mater was found to be generally adherent. The convolutions were flattened, particularly near the vertex; the veins between the sulci were engorged, while the larger sinuses were deficient in the amount of blood they contained. Slight milkiness of the arachnoid was observed, and along the course of vessels distinct white lines were well marked.

In the sulci of the more dependent convolutions, *e.g.*, at the dependent portion of the intra-parietal fisssure, small and localised atrophies existed.

On removing the brain the coats of the arteries were found to be much thickened, the vessels remaining distinctly patent. On the basilar artery large deposits of a yellowish colour were found. The middle cerebral arteries on being traced into the fissure of Sylvius on both sides were seen to be the seats of this deposit in a marked degree, and might be spoken of as moniliform in appearance. The pia mater was non-adherent, in consequence of the irregularity of the deposit. Gray matter was dark, and the convolutions were deep.

On slicing the brain in the usual manner from the vertex towards the base, there was found in the centre of the occipital lobe of the right hemisphere a clot of coagulated blood the size of a walnut; below this level and on a level with the corpus striatum a large narrow clot was found, measuring between five and six inches in length, and about one and a quarter inches in breadth, extending from about an inch from the anterior tip of the frontal lobe to about the same distance from the tip of the occipital lobe, and being bounded on the left by the motor tract, which was not implicated. The white matter around the clots was generally soft and of a yellowish tinge. The large clot was unconnected with the smaller one, and was further from the vertex, or on a lower level.

In the left hemisphere a yellow softening, irregularly round in shape, and about the size of a large walnut, was found impinging on the corpus striatum, and involving the extra-ventricular nucleus and claustrum, extending to within a few lines from the grey matter of the

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surface. The diseased tract was surrounded by a thin wall of indurated brain tissue, its contents being diffluent and of a yellowish colour. Spinal cord apparently normal.

Heart.—Left ventricle was found to be hypertrophied and the walls were friable. No valvular disease existed.

Microscopic Examination.

1. *Pia Mater.*—The muscular coats of the vessels were much thickened, and at some parts swellings were seen, consisting apparently of molecular matter.

2. In the grey matter large bodies covered with pigmentary degeneration were seen of the size and shape of cells, and in some of them a nucleus could be detected.

3. In the softened portion of the left hemisphere a few compound granular cells were seen, and the field of the microscope was occupied by minute oil globules. In the right hemisphere the yellow softening around the clots presented no compound granular cells.

4. No aneurisms were detected on the vessels in the neighbourhood of the clots.

5. The adductor pollicis muscle was examined, and the fibre was found to be in a perfectly healthy condition.

Portions of the brain were taken from the occipital, parietal, and frontal lobes; from the neighbourhood of the degenerated tract and either clot; from the corpus striatum, cerebellum, pons, medulla, and spinal cord. These were hardened in chromic acid in the usual manner, cleared with turpentine, and set up in gum dammar.

Frontal Lobe.—Muscular coats of the arteries were considerably thickened, and the walls of the capillaries were well defined.

Ascending Parietal Convolution at Vertex.—In transverse section of the arteries the muscular and outer fibrous coats were found much thickened; the latter existed in concentric rings, between which lay finely molecular bodies, in some respects resembling small corpora amylacea; in some instances spaces existed between this thickened fibrous coat and the brain substance. Occasionally this space was empty, in others a very fine gelatiniform substance was observed. In many of the smaller arteries perfect occlusion had taken place; the larger ones were filled with blood corpuscles. The muscular coat of the arteries of the pia mater was very much thickened. On the base of the large cells of the fourth and sixth layers a coarsely granular fuscous deposit was universally observed. In some instances this had gone on to complete destruction of the normal appearances of the cell, in others the nucleus was the only part unaffected.

Occipital Lobe.—On the vessels of the third occipital convolution the amyloid-looking bodies were more thoroughly defined, and a greater number of the vessels seemed to have undergone occlusion than in the anterior portion of the brain.

Cerebellum.—The vessels of the pia mater were much affected. Cells of Purkinji were unaffected.

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Right Corpus Striatum.—The diseased condition of the vessels was more thoroughly marked in this position than in any other, and the capillaries were likewise very strongly defined. The muscular coat of one artery was seen to be at least four times thicker than normal. There was a general increase of the nuclei of the neuroglia.

Left Corpus Striatum.—In a portion taken from the neighbourhood of the degenerated tract a similar condition of the vessels was found. It may be generally stated that the nearer one approached to the diseased tracts the more marked was the disease of the vessels. Immense deposits of hæmatoidine were found immediately below the ependyma ventriculorum and in the perivascular canals.

Pons.—The vessels were much affected in a manner similar to the condition already described. The large cells were immensely affected with fuscous degeneration. The transverse fibres were of a yellowish tint, refusing to take on colouring matter. The same description applies to the medulla oblongata.

Spinal Cord.—Vessels were markedly affected. Cells of the posterior vesicular column were seen to have undergone partial or complete fuscous degeneration. In the posterior column large deposits of true corpora amylacea were found. The specimens taken from all parts readily absorbed carmine.

OCCASIONAL NOTES OF THE QUARTER.

The Budget and Pauper Lunatics.

As might have been expected, the advent of a Conservative Government was the signal for an attempt being made to relieve local taxation; and the overwhelming majority by which Sir Massey Lopes' resolutions on this subject were passed two years ago, pointed to the maintenance of pauper lunatics as being one of the burdens that should be partially, or entirely, removed from local, and placed on imperial taxation. Accordingly, in the Budget introduced by the Chancellor of the Exchequer, on the 16th of April last, it was proposed that four shillings a week should be paid from imperial resources to each union in the United Kingdom, for every lunatic in the county or borough asylums, and subsequently Sir Stafford Northcote fully explained that this subsidy would not be allowed either for pauper lunatics in lunatic wards of workhouses, or for lunatics boarded out with friends or others, or for those in the Metropolitan Asylums at Leavesden, Caterham, and Hampstead. The arguments for and against this scheme are rather nicely balanced, and until it has had an extended trial of three or four years it will be difficult to

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