

CLINICAL NOTES AND CASES.

A Case in which a Lesion of one Hemisphere of the Cerebellum was associated with Degeneration of the Olivary Body of the opposite side. (With Plate.) By WILLIAM DUDLEY, M.B. Lond., Assist. Med. Officer West Riding Asylum.

W. H., 62, married, was admitted into the West Riding Asylum May 8th, 1884; died March 31st, 1885.

History.—From his youth patient has been subject to attacks of excitement and violence. Seven years before admission his wife left him because of his bad conduct. After that he wandered about, getting work here and there as a common labourer, though a weaver by trade. During the last four years he has been in the workhouse; he entered it because he could not get work. While there he has been morose, stubborn and destructive at times. He was formerly intemperate.

His sister was imbecile.

Mental state on admission.—He is extremely imbecile; unacquainted with the simplest facts of his history, and incapable of maintaining any rational conversation. He is ignorant and inappreciative of his position and surroundings, and frequently fails to understand the meaning of simple questions.

Physical condition.—The patient is partially paralysed. The left arm is weaker than the right. In walking there is a distinct drag of the left leg. The tongue is steady, protruded straight, well under control. His articulation is extremely difficult, imperfect, and indistinct, but he is not aphasic.

After admission, the patient gradually became more feeble and demented. His left leg was kept stiff in walking; he staggered and was apt to fall. His habits were generally clean, but he frequently suffered from incontinence of urine, especially at night.

On Jan. 25th, 1885, for the first time, he had a convulsive seizure, described as an ordinary epileptic attack. After the fit he was able to walk into his room.

Jan. 26th.—Another very severe fit. Examined the next day, he was observed to be more feeble on his legs, and could stand and walk with much difficulty.

No more fits occurred. The paralysis increased, so that he became quite unable to walk without assistance. There were no contractures.

Post-mortem appearances.—At the P.M., 24 hours after death, the more important appearances observed were the following:—

The skull-cap was very dense and heavy. The dura mater was very firmly adherent to the cranial vault. On the inner surface of

the dura mater in the right middle, and in both posterior fossæ, were thin, soft films of false membrane, of dark colour, almost like blood-clot. There was a large amount of clear serum beneath the arachnoid, which was opalescent. The arteries exhibited most extreme atheromatous degeneration, and could be torn across with very slight force. The inner membranes were much thickened, and were stripped with great ease. The convolutions were markedly atrophied, especially in the frontal and parietal lobes. The lateral ventricles were much dilated. The cortical grey matter was of diminished depth, and its striation indistinct. The white matter was of a dirty hue.

In the cerebrum were many *areæ* of softening, none of them very extensive. In the right hemisphere there were two in the optic thalamus, and one in the white matter beneath the middle of the ascending parietal gyrus; in the left hemisphere one just behind the orbital fissure, one involving the outer part of the lenticular nucleus and the claustrum, and several in the optic thalamus. In both hemispheres were several spots the size of a hemp-seed in various parts of the white matter.

In the left hemisphere of the cerebellum, near its central part, and involving the corpus dentatum, was an area of softening, about $\frac{3}{4}$ -inch in diameter, of irregular shape, and of a deep brown colour. The wall of this area was firm and fairly-well defined. The tissue in the neighbourhood was slightly stained and softened. The right olivary body presented a gelatinous appearance. There was no indication to the naked eye of its convoluted grey matter. It was rather firm, and apparently not diminished in size. The left olivary body appeared quite normal.

The brain generally was much reduced in consistence. Between six and seven ounces of serous fluid were collected from the skull cavity.

In sections through the hardened medulla, stained with aniline blue black, the olivary bodies are seen to be of nearly equal size, the right being slightly narrower than the left. In the left the convoluted grey matter is sharply defined. In the right it is blurred and indistinct, and appears from diffuse staining broader than that of the left. Under a low power a great difference is seen in the appearance of the two sides. The left olivary body is normal. The grey matter shows a blue band with sharply-defined margins; the cells are normal in number, size, and appearance. The rest of the olivary body is much more faintly stained. Nerve fibres are seen converging from the grey matter towards the centre, and are collected into very distinct bundles as they pass out through the hilus.

The grey matter of the right shows a much broader and fainter blue band, the margins of which gradually fade into the surrounding tissue. Comparatively few cells, and in parts none, having anything like a normal appearance are here seen, but there is

much coarsely granular matter, probably the remains of atrophied cells. Some of the few cells which remain are larger than those on the healthy side. The nerve-fibres in the interior are not so distinct as on the other side. The parolivary body and the nucleus of the pyramid are unaffected. The hypoglossal nuclei and nerve roots are alike on both sides. The cells of the nuclei have an excess of pigment. I have been unable to detect any tract of degeneration either in the medulla or in the spinal cord.

The case is of interest as a pathological illustration of the crossed connection between the hemispheres of the cerebellum and the olivary bodies. The recorded examples of this condition, so far as I have been able to ascertain, are by no means numerous. Meynert describes the fibres which form the connection, and states that atrophy of one-half of the cerebellum always coincides with atrophy of the opposite olivary body; he makes no further reference to the cases which prove this.

The marked difficulty in articulation, without aphasia, and with complete control over the tongue so far as coarse movements were concerned, is also important. The part of the olivary bodies in controlling the movements of articulation has long been known. It was hinted at even by Willis, but it appears to have attracted little notice till revived by Retzius in 1836. (*Vide* Shroeder Van der Kolk on the Medulla.)

For the illustrative drawings I am indebted to Mr. T. B. Hyslop, pathologist to the asylum.

Three Cases of Choking. Reported by DAVID WELSH,
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CASE I.—J. W., aged 38, a shoemaker, was admitted Oct. 7th, 1876, in a state of acute mania. He was noisy, restless, full of delusions, dirty in his habits, and very destructive. Physically, he was in poor health, and had harsh breathing at the apices of the lungs. The mania, after about 18 months, passed into secondary dementia.

Nov. 2nd, 1876.—Taken ill to-day with sub-acute bronchitis.

Oct. 27th, 1877.—Has again a sub-acute bronchitic attack.

Nov. 22nd, 1878.—Suffers from slight attacks of bronchitis.

July 29th, 1880.—Has again an attack of sub-acute bronchitis.

Dec. 10th, 1884.—Lately has been suffering from slight dyspnoea, apparently due to chronic bronchitis.

Feb. 22nd, 1885.—Remained in his usual state until to-day. After dining in the Hall, he carried off a piece of tough meat, and whilst devouring it he choked. I was at once sent for, and reached