

Counties, and advise the local authorities as to cases suitable for removal to workhouses and to private houses from Asylum, and *vice versâ*.

All the general provisions we have mentioned as required for England to be made applicable to Ireland and Scotland. In the Lunacy Acts of all three countries there are inoperative and unused sections that should be got rid of.

T. S. C.

Apoplexy, Aphasia, and Mental Weakness. By G. H. SAVAGE, M.D. Lond., Assistant Medical Officer, Bethlem Royal Hospital.

In asylums, we are used to find but small changes in the nervous centres in our dead patients, and these changes are often of so general a character, that no assistance is given towards clearing up the question of localisation of function in brain-centres.

In epileptics and some other chronic cases, the symptoms during life may point to a centre in the brain that will be found diseased after death. That there is a definite separation of centres of functions, most physicians are now prepared to admit, and, theoretically, the existence of such centres is rendered probable by the peculiar narrowness of some of the commoner delusions of the insane. If there be, for instance, a centre for organic visceral sensations, disease of that centre would account for various hypochondriacal cases, such as those who fancy they have "lost their intestines," or that "nothing but a large *cloaca* exists in their abdomen." Again, diseases of this centre might result in delusions such as that the body is "non-existent" or "dead," there being a complete change in the organic sensations, or, what is equivalent, in the centre receiving such impressions in such cases.

The effect on the healthy mind of deprivation of one or more of the senses has been often considered, and the difficulty of building up a sound and powerful mind, when one or more is wanting, is also well known. And, in this relation, Miss Martineau's early struggles against her mental deficiencies are instructive. But there is room for considering the effects on the mind of a lesion not only destroying a centre associated chiefly with expression and communication of ideas (like the "Island of Reil"), but also breaking up

other intellectual relationships by destruction of connecting fibres. My opportunities have not yet been large enough to warrant my generalising on the effects on the intellect generally of apoplexies in different parts of the brain.

The subjoined case is of interest, from the amount of coarse disease found in the brain, and from the fact that a very large amount of brain-tissue had been destroyed; and yet the patient not only lived, but grew fat and strong. The question of the aphasia will be noticed more in detail later.

The first remarkable fact in the case is, that there was a double inheritance of apoplexy, if I may use the term, both the parents having died of blood effusions from ruptured arteries in the brain.

Certain diseases are already recognised as highly transmissible, but I am sure that many others will have to be grouped together as governed by the same inherited conditions. I hope to be able, in my next paper, to show some connection between arterial changes and some forms of general paralysis of the insane. In both apoplexy and general paralysis, we may have a tendency to fibroid degeneration transmitted, ending in one case in brain starvation, and in arterial rupture in the other. We know that some diseases of infancy are inherited, or rather that certain latent tendencies in the parents may be passed on, and appear in another form in the offspring; thus a phthisical parent may produce a strumous or hydrocephalic child. I have seen also in several cases both parent and child suffering from similar mental ailments at similar ages, or under similar conditions. Thus I have known mother and daughter both subject to puerperal insanity. This is little more than one would expect, for we know that gout and phthisis may likewise be inherited.

I would only add here, that we see cases degenerate in the same way, there being, as it were, a way of dying common in the family. One family has cancer for its bane, another Bright's disease or apoplexy, and a third may have, in addition to physical decay, mental break-down. I have seen several well-marked cases in which the insanity of the family only showed itself when the patient was gradually sinking, worn out by some other disease. Thus a lady of 65 years became profoundly melancholy and full of dreads and apprehensions, and I found that her mother had had similar mental symptoms before she died of age and general wearout.

Without further preface, I add the case.

A. A. Married. Aged 59. Professional man, sober, and of industrious habits, having a healthy family. His father was found dead, death resulting from a fit of apoplexy. His mother died in her third apoplectic fit. No other neuroses known to exist in the family.

The history of the earlier attacks of apoplexy is imperfect, as no notes were kept by the medical man who attended him in them.

The patient was first taken ill in January, 1875, being seized with right hemiplegia with complete aphasia. The aphasia was complete for a week, and then passed slowly away. The hemiplegia lasted only a few days.

(The transitory nature of the symptoms is noteworthy, and must be taken in connection with the unusual site of the lesion, and the inference will be that the symptoms were produced by *pressure on* and not *destruction of* the motor and other centres.)

In six weeks from the attack of apoplexy the patient was well enough to resume his ordinary calling.

The next attack was of a less severe nature, and was called "*epileptic*," as it was of such short duration. This occurred in June or July, 1875, and lasted only a few hours, and he again resumed his work.

In February, 1876, he had his third fit, which was very severe, affecting his left side. In this fit he was severely and continuously convulsed for many hours, was very sick; his respirations became shallow and laboured; mucus collected in the bronchial tubes, and he was thought to be moribund. He was in bed several weeks and then began slowly to regain his bodily strength, but was markedly weaker in mind. He got about again, but was no longer fit for his professional duties, though at times he essayed them.

In October, 1876, he had another extremely severe fit, in which he was expected to die. This time he was speechless. During the next six months, he improved greatly in general health, ate, drank, and slept well, and was generally in a placid, weak-minded condition. He was, however, irascible, and at times noisy, and, as he regained power, was more difficult to manage and became restless. He was sent to Bethlem Hospital, May, 1877,* under certificates stating that he was weak-minded, at times violent, at others tearful

* Reported by permission of Dr. Rhys Williams.

and emotional. He would shake hands with perfect strangers as if he knew them.

On admission—and I may here say that I saw him before admission—he was in good general health, with fair power in his limbs, one not being weaker than the other. Common sensation perfect. He took food well. Bowels regular. Clean in habits. Always with a smile on his face. He only said, “yes,” or “yes, dear,” if questioned, and did not seem to understand much that was said to him. He would listen as if he understood, but we could never get him to do things by word of command. Thus, if shown an object which he seemed to want, and then taken some yards from it and asked to fetch it, he forgot the object before he got to it. He had *arcus senilis* of both eyes. On careful examination of optic disc, both were found pale, the small vessels on them in strong relief; one large vein on right eye beaded in appearance. In the left eye, the large vessels were surrounded with lymph or connective tissue here and there. Macula scarcely to be made out in either eye. The temporal arteries were prominent and tortuous. At the wrists he had no radials, but the ulnars were large and very tortuous, giving the appearance and feeling of a small aneurism. The pulse-tracing showed high tension, but this was rather the tension, or apparent tension, of a *rigid* tube than of a *full* one.

For six weeks he improved greatly in general appearance, got quite stout, was always walking about, and seemed cheerful. He learnt no new words, and seemed weak-minded as ever. He seemed more pleased to see his friends than strangers, but was friendly with any one.* In July he had another fit of an epileptiform character, which affected his limbs generally; he could not articulate at all for an hour after this fit, but was soon himself again. From this time till September there was no fit, and he gained flesh, but otherwise was unchanged.

On September 19th, at 9.30 p.m., he was found lying on his left side vomiting and quite unconscious. There was no convulsion, but his left arm and leg were quite powerless, unresisting, and relaxed. His right arm was by his side, the forearm across his chest, waving to and fro, as if to brush something from his mouth. If pinched on the right side, he resisted; but did not flinch, if pinched or pricked on the left. He had sensibility in right conjunctiva, but

* His writing before and after the attacks are seen in lithographic plate, No. 2.

II.

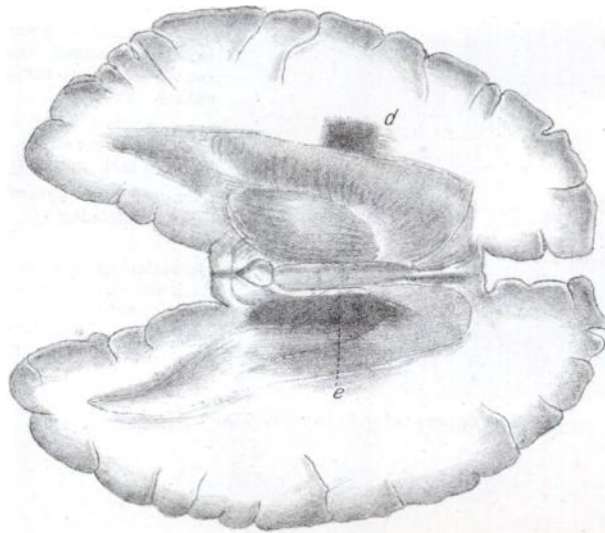
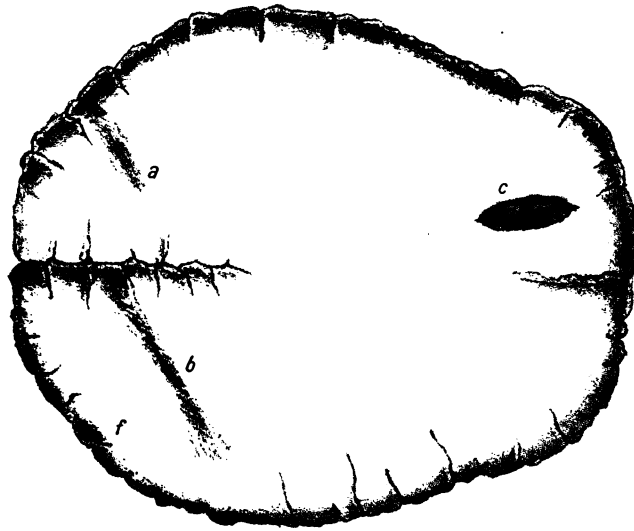
Handwriting before attack

By your, I give away
I to what persons
I have a rough list
given to me from
Chicago Row but

Handwriting in July 1877

Mr. X X X X X
Mr. X X X X X
Mr. X X X X X
Mr. X X X X X
Mr. X X X X X

I
Two Sections of Brain



none in left. When the right foot was touched, it was rapidly drawn up; not so the left.

Pupils small and equal. Motions and water passed involuntarily. Temperature in axilla 97°. Pulse 120. Respirations 30. Both temporal arteries equally pulsating. The vomiting continued for two hours. Patient then slept. The next day he was unconscious and quite paralysed on the left side. Pulse and respirations increased in frequency, and mucous râles were developing. Temperature in left axilla 100°, with surface thermometer on forehead 94°.

On the second and last day, temperature in right axilla 100°, in left 98°, on forehead 89°. The right hand continued to move across the mouth. Patient died forty-eight hours after the last fit.

Post-mortem examination within twenty hours after death. Left foot flexed and inverted. Calvarium unsymmetrical, right half the larger. Dura mater adherent throughout. Excess of sub-arachnoid fluid. Convolutions flattened on both sides. Effusion of blood on surface of right side of cerebellum. Pia mater and arachnoid easily separable from brain. Left half of brain most wasted. Grey matter pale and thin. The lesions will be more fully described below. Brain weight 50 ounces. No other marked disease in the body, beyond fatty degeneration and atheroma of arteries.

TABULAR VIEW OF FITS.		PROBABLE SEAT.
1. January, 1875	Right Hemiplegia. Aphasia of short duration.	Left Occipital region (a).*
2. June or July, 1875	"Epileptic."	
3. February, 1876 ...	{ Left Hemiplegia. No aphasia. Very severe.	Right occipital a great (b) extent, affecting region round parieto-occipital sulcus.
4. October, 1876	Right Hemiplegia. Aphasia (permanent). Progressive Dementia.	Large excavation of superior frontal convolution of over an inch square (c).
5. July, 1877	Slight "epileptic."	(?) caused by superficial spot of softening (f).
6. Sept. 19, 1877 ...	Profound Hemiplegia and anæsthesia. Right arm jactitation.	Destruction of corpus striatum and thalamus opticus on right side (e). Small effusion in outer side of corpus striatum of left side (d).

* The figures refer to the lithograph No. 1.

The point of most interest to us in cases of apoplexy is the effect of such attacks on the intellect. And first, it is rare in my experience for apoplectic patients to require detention in asylums. This is, of course, often a matter rather of money than of mental symptoms. In the upper and middle classes, a patient, who has had a stroke, and has become aphasic and weak minded, can be treated at home; but among the poor, or those who cannot pay for attendants, the patient is better under infirmary or asylum care. In some cases, doubtless, regular asylum care is required, for they are practically demented, and should be treated as such, requiring to be fed, clothed, kept warm and clean.

Apoplexy may attack a person, and he may recover both his muscular and mental vigour entirely, but in very many cases there is some loss. This, doubtless, differs much according to the other conditions of the patient and the cause of the apoplexy. A man past middle life, with already degenerating arteries, and an ill-nourished brain, will suffer much more than a younger and arterially healthy patient. In our patient there was general vascular decay.

A single fit of apoplexy often leaves less marked mental symptoms than a series of epileptic fits or fits in general paralysis.

The effects of an apoplexy on the mind are various, according to the site of the disease. As a rule, the free anastomosis of arteries allows the brain to be freely nourished soon after the fit, but I have seen one case at least in which many of the arteries supplying the cortex beyond the apoplexy were plugged, the blocking of the arteries seeming to have followed shortly on the fit.

An attack of apoplexy may affect the mental state of a person already of unsound mind.

Thus Mrs. W. had been a patient in the incurable establishment of Bethlem for twenty years, suffering from chronic mania. She was perfectly uniform in her behaviour for years before her death, avoided all notice, and would be angry if spoken to. She kept almost constantly alone in her room, and would abuse people for conspiring against her.

On November 16th, 1876, she had a fit, falling down insensible. She had loss of power over her left arm and leg, and never recovered the use of her arm but regained some in her leg. She kept her bed till her death on January 18th, 1877.

From the time of the recovery of sensibility to her death, she was mentally unlike her old self. At first, she was cheer-

ful and pleasant and would talk affably. Towards the end of her life, she became very noisy, shouting and shrieking, especially at night. She said "*she had a feeling as if she were going to sink through the bed and floor.*" In her case there was a small clot occupying the outer part of the *corpus striatum*.

We next pass on to notice some mental disturbances associated with *aphasia*.

Several interesting cases have been recorded in the discussion in France on *Aphasia*, reported in the "*Annales Medico-Psychologiques*."

Thus a M. Lordat, an accomplished lecturer and teacher, after an attack of apoplexy that caused *aphasia*, recovered all power, but was no longer able to lecture without notes, whereas before he had been noted for his brilliant improvisation. This may be said to be a very slight evidence of intellectual loss, because his most brilliant writings were made during the thirty years he survived his *aphasic* attack. It is maintained by some that the intellect is less affected in left than in right hemiplegia. In some cases the only permanent effect on the intellect has been increase of the emotional displays.

It is possible for persons having become *aphasic* to re-learn to speak, but this is not possible to all. Some show their mental weakness by inability to apply themselves steadily to the task.

Persons who are *aphasic* may be perfectly competent to give evidence or to make a will.

Aphasia must be looked upon only as a symptom that may have many causes.

With *aphasia*, we may have *agraphia* and general *amnesia*; the varieties of the affection, and its various relationships, are extraordinary.

A man has been known to lose his native and retain his acquired language, or to lose his acquired language and regain the language of childhood.

Every case of apoplexy must be considered on its own merits, it being borne in mind that moral or intellectual changes may occur after a fit, and remain permanently, but that perfect rationality may exist with complete loss of power to use words. It will always be a difficult thing to decide on the mental state of one who is *aphasic* and *amnesic*. In our case we had considerable effusion of blood, destroying large areas of the brain, and yet the patient recovered enough

power to do something in his profession. The first attack of aphasia was transient, and, I believe, due to pressure.

In the attack that left him permanently aphasic, a large clot destroyed an important part of his frontal convolutions, rather cutting off the connection with the "Island of Reil" than injuring it.

The dementia, I suppose, is to be considered rather as the result of general degeneration than of a spreading of inflammatory processes from local centres of degeneration.

*Morison Lectures on Insanity for 1877.**—By JOHN SIBBALD, M.D., F.R.C.P.E., Deputy Commissioner in Lunacy for Scotland.

LECTURE III.—INSANITY IN MODERN TIMES.

We have attempted in the previous lectures to obtain some idea of the way in which insanity was regarded, and the manner in which the insane were treated up to the beginning of the eighteenth century. We have found that a large number of those who would now be regarded as insane had been, up to this time, either disregarded altogether, or looked upon as exercising supernatural powers of evil, or as inspired with beliefs which were dangerous to the State. Three circumstances seem to have been the chief influences that tended to prevent persons labouring under mental disease from being treated with the consideration due to that affliction, or often with any feeling that they were worthy of sympathy or requiring to be cared for. These were pointed out to be (1) the character of the social system in ancient times—powerfully affected as it was in every detail by the existence of slavery; (2) the political exigencies of communities both in ancient and mediæval times—so seldom in prolonged possession either of the external peace, or of the internal tranquility necessary for the development of philanthropy in a government or a sense of social duty in a people; and (3) the superstitious ideas arising from ignorance—under which abnormalities of mental condition were attributed to self-induced possession by the devil or to other criminal conduct or supernatural association. In the beginning of the eighteenth century, however, these conditions had either been abolished

* These Lectures were delivered before the Royal College of Physicians of Edinburgh.