Short Notes and Clinical Cases

TRAUMATIC APHASIA AND ALEXIA

By

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By one of those extraordinary coincidences that are proverbial in the medical profession, there have lately come under my care two cases, the one of almost pure traumatic aphasia and the other of pure traumatic alexia and agraphia, in schoolboys of the same school, over 40 miles from Bristol, and these are, I believe, the only boys from that school I have ever seen professionally. In both cases the disability was only partial. Both were due to a kick at football. In neither was there an open wound; in both there was a localized fracture of the skull. One was operated on for depressed fracture; in the other case the fracture was not depressed and no operation was performed. Both made a good recovery.

TRAUMATIC APHASIA

Case 1.—Patient, a boy of 16, was seen on November 16, 1932, in consultation with the late Dr. Cameron of Taunton. Four days before he had been kicked on the left temple during a football match. He was unconscious for 20 minutes. As soon as he recovered, it was noticed that he had considerable difficulty in talking, though he was able to understand everything that was said to him, and to read to himself. There was some weakness of the right side of the face of supranuclear type. Headache passed off after a day or two.

When seen at a nursing home, the boy looked bright and had no headache. Pulse and temperature were normal. There was no facial paralysis now on smiling or shutting his eyes, but it was still visible when he spoke. There was tenderness over the left temple, but no depression of the bone could be felt. There was no paralysis, squint or nystagmus.

Patient remembered past events well and could reply to questions better than on the preceding days, making no mistakes. The aphasia had largely cleared up. Asked, however, to repeat 'To be or not to be,' from Shakespeare, which he said he knew well, he stumbled over the words a good deal. He could read.

The skiagram showed a small depressed fracture over the site of Broca's convolution. The left side of the skull was exposed by operation over the depressed area, and a depression of both tables, about the size of a shilling, found. The depressed bone was elevated and removed. There was a little extradural clot beneath it, which was removed. The dura mater pulsated well; it was not opened.

Patient made an uneventful recovery. In a few days the aphasia had gone. He was seen in 1935, well in all respects.

TRAUMATIC ALEXIA

Case 2.—J.T., age 14. Seen on February 17, 1936, with Dr. Pearse of Taunton. Two days previously, whilst playing Rugby football, he was kicked on the left side of the head. He appeared to be dazed for a few seconds, and the space of about 15 minutes was missing from his memory. He was put to bed and vomited several times, but there was no headache at any time. There was bleeding from the left ear for 24 hours. That morning, a letter arrived from his mother and he was unable to read it.

On examination, patient was a normally developed boy of average intelligence, quite bright and cheerful. He complained of no pain, and said that his sight was normal, except for the difficulty in reading. He talked normally and understood everything that was said to him. There was a tender area, slightly swollen from bruising, the centre of which was $2\frac{1}{2}$ inches above and $1\frac{1}{2}$ inches behind the left auditory meatus. A skiagram showed a small stellate fracture at the site of tenderness, without depression of the skull. Temperature had varied from 97.5° to 98° and pulse from 60 to 76. There was no muscular weakness, no loss of sensation, no abnormality of reflexes; eyes were normal, optic discs normal. He counted figures at once and accurately, and recognized objects at sight. He recognized a large number of pictures from a book correctly, except that a cap he called, 'what a boy wears on his head.' Asked to read the number-plate on a picture of a motor car he read the four figures at once, but called the letters S.D. instead of R.D. He read simple printed script stumbly, missing about one word in four, e.g. he could not read 'lorry.' He read the French verb *je vais* (pres. indicative), which he knows, correctly, but read 'nous' for 'vous' in a sentence. He could not read Latin. He wrote the headmaster's name correctly, but misspelt his own. He wrote his age 14, but could get no further than 'fourtee' in letters. He wrote from dictation, 'The Lord is my Shepherd' (his spelling and reading are said to be normal for his age). He appeared to be green-blind, but recognized other colours well, even in dots no bigger than printed letters.

The headmaster undertook to test his reading day by day and report to me.

On February 18 he was given Mark i. 1-5. The following words were either misread or unread: Gospel, behold, messenger, which shall prepare thy way, voice, crying, wilderness, make his paths straight, baptize, preach, baptism, repentance, remission, there went out, him, Judaea, they, Jerusalem, baptized of him, confessing their.

On February 19 he was tried with a vertical list of three-letter words for 15 seconds. He read ten words with four mistakes, reading two w's for x's. He could only read four out of a vertical list of four-letter monosyllabic words in 15 seconds.

On February 20 he could read boys' names—Tom, Jack, Archibald, at once; Gerald had to be written for him.

On February 22 he read a vertical list of three-letter words with three mistakes out of seven, and five four-letter words, all incorrectly. He was, however, able to write them and then read them.

On February 29 and March 1 he read Mark ii. 22 to iii. 24 correctly. It is evident, therefore, that the alexia has now cleared up.

COMMENT

Localized injury of the cerebral cortex, as a result of a blow on the head, is not uncommon in surgical practice, with or without a depressed fracture of the skull, but usually the symptoms are those of a lesion of the motor or visuosensory areas. One patient under my care, a public schoolboy, had a

transient hemianæsthesia of the right side of the body after a blow over the left parietal bone ; there was no period of unconsciousness, and the trouble cleared up in a few hours. But almost pure aphasia or alexia following such an injury must be quite rare, and appears to be of considerable physiological interest. The centre of the blow in the first case was over Broca's convolution, and in the second case over the area generally supposed to be connected with the function of reading.

The question of prognosis, and, depending on that, of treatment, is interesting. So much improvement had already taken place in the first case that it seemed all but certain that recovery would be perfect whether operation was performed or no. As there was definite depression, however, we thought it better to elevate the bone so that it might not be a focus of irritation later. In the second case there was no bony depression, and up to the time of examination no improvement had been observed ; but, encouraged by the fact that the alexia was only partial, that general experience shows that in non-fatal local injuries of the brain a certain amount of recovery is to be expected, and remembering the happy course of the cases of the two other patients mentioned, we decided to adopt expectant treatment. As will be observed, after a fortnight from the date of the accident the boy could read correctly.