

AN ANOMALOUS CASE OF APHASIA.

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S.—Age 33. An Englishman of the lower class and a butcher by trade. His family history was good. Physical examination revealed no organic visceral disease. He had never been sick before the present attack. The patient was right-handed.

On July 10, 1892, while he was standing on a short step-ladder washing a hearse, he reached out too far, lost his balance and fell to the asphalt pavement—a distance of some six feet, striking the ground on the superior curved line of the occipital bone about one and one-half inches to the left of the median line. No wound was inflicted by this fall and the slight contusion and swelling entirely disappeared in two days. He was unconscious for three or four minutes after the fall, but on recovering, walked home—a distance of five blocks. The patient was questioned closely on several different occasions in regard to dizziness or faintness, etc., to ascertain if possible any facts which might tend to solve the problem of the cause of his falling other than the one given above, but none were obtained and I do not doubt but that it occurred as he said. For seven days after this fall he remained well and was able to be about his work as usual, but on the morning of the eighth day after the fall, on waking he was unable to speak a word. Aside from this he was all right.

He did not go to work, and on the second day, finding himself no better, he went to Bellevue Hospital of his own accord. After a few days stay there he became somewhat dizzy, confused and wandered about in an aimless manner. He was, therefore, sent to the insane asylum, Ward's Island, where he quickly recovered from his confused state and in a few weeks was able to do some work about the building. His aphasia, which had been complete, began to improve slowly at the end of three or four months. He was then able to say "Yes" "No," "Home," "Wife," and on October 1, 1893, when put through the different tests of aphasia, it was found that he could readily name some objects after one, while

other words equally as simple, he could repeat only after several trials, and still others he could not pronounce, nor could he write these simple words from dictation, but could copy most all the words of five or six letters. This he did by going very slowly as if drawing a figure. His sight and hearing were intact.

While his aphasia seemed to be of the motor type, yet all forms were more or less associated, especially amnesic and alexic aphasia. He could think of and pronounce nouns and substantives, but could not describe their action or use. He was much more able to recall words than to pronounce them. He could understand perfectly what was spoken to him as shown by his ready action to do things asked of him. At times by concentration of attention he could formulate difficult sentences, and at other times he could put no words together sufficiently coherent to make sense. Occasionally after a line of thought would be started, he would stop and try to speak of another subject, but the first topic would be strangely mixed with the second. For instance, while speaking of carrying water for the horses in the stables, he attempted to speak of his work in the kitchen, and the following sentence was the result: "Standing in ditchen (kitchen) fixing water for horses." Whenever possible he would use the particle for the verb.

Generally, when asked about the name of some familiar object about the room, he would say, "I can think—and know it—but—I cannot."

His education had been imperfect and his vocabulary was necessarily very limited. It was, therefore, difficult to tell just how much amnesic aphasia there was. He cultivated a very ingenious way of avoiding a word he was unable to pronounce. The following is an illustration. After making several vain attempts to pronounce "rat," he finally said in an explosive manner, "Cat fixes them."

His agraphia showed itself in his inability to write words which he was able to read readily, and also those words which he was in the habit of writing every day in the shop, prior to his sickness. It was thought that he might be able to learn some of the simpler words that he had forgotten, or, at least, "re-educate" the centre on the right side, and he was, therefore, given systematic word-lessons in English, but he soon acquired the habit of trying to remember the word as it was spoken to him, and gave no attention to the printed word or the accom-

panying picture, which habit he could not be induced to give up and his material progress in acquiring a new vocabulary ceased. He could not select a given letter of the alphabet if placed in a group of more than three or four others.

All the facts in the case regarding previous education, business ability and general symptoms of the patient's attack prior to his detention in the asylum, were verified by his wife and mother, who visited him frequently.

Since his arrival at the asylum he had four seizures about four months apart. The nature of the first three was not accurately recorded, a physician not being present, but the fourth one was witnessed by several physicians.

The patient fell suddenly without premonition while going from the ward to the water closet. Then followed a general convulsive movement. The pulse was 120 small and tense; while the respirations were 24 per minute, regular and rythmical. His heart was tumultuous in its action, and once or twice hesitated in systole. The pupils were normal and responded to light. Occasionally he groaned and moved his head from side to side. There was no cry in the beginning, foaming at the mouth or stertorous breathing, and he responded to pin-prick throughout the attack, which lasted ten minutes. In one-half hour, the patient was apparently none the worse for the seizure and was up walking about, showing no mental dullness and no change from his condition prior to the convulsions. The orderly informed me that this attack was similar to the other three in its onset, course and termination. This one resembled in some respects an epileptic seizure. For the last year I cannot say that the patient has made any material improvement nor has he apparently grown worse.

This case seems to me to be not only one of interest, because of the varied symptoms presented in his aphasia, but also from the probable or possible cause of the disease and the lesion now existing in the brain.

Several explanations have been suggested as to the lesion present causing the aphasia. One reason was, a slight but continuous oozing hemorrhage in Broca's convolution which was not sufficient to produce any disturbance of motion or sensation until the eighth day.

It seems to me that this reason is extremely theoretical. Even supposing this hemorrhage to be as small

and gentle in its onset as imagined, it would not account for all the different forms of aphasia present, which according to present authorities have their foci in different regions, and, a hemorrhage covering that area would be quite sure to produce other motor disturbance aside from the simple aphasia. If this reason is accepted, the result we should expect would be absorption and improvement in a short time, which was not the case; or, it might result in sclerosis and contraction of brain tissues; and again, it might result in cerebral softening and disintegration; but either one of these latter lesions would give us steady retrograde symptoms, which again is not borne out by the clinical history of about two years with little improvement.

Another solution given us is that the fall and its apparent cause of the condition present were purely accidental, and that the patient was suffering from a cerebral tumor, the seizure pointing directly to its pressure and periodical irritation.

It seems to me that this might be dismissed with the remark that no other local or general symptoms indicative of tumor were present except the seizures.

And still another cause advanced was that of embolism or thrombosis, and that the capillary walls became so degenerated by the injury that they furnished a ready condition of plugging. After this embolus and thrombus had shut off the blood supply and the resulting softening was thought to be a sufficient cause of the convulsions and his present aphasia. But why he does not continue to grow better or worse, those who advanced this theory do not attempt to explain. He had no heart lesion or arterial change.

I myself have no explanation to offer in the case either as to the lesion in the beginning or the present one, save that the theory of embolus and softening, seems to me to be the more possible of those given in the report of the case. I think, however, we should bear in mind that the lesion of embolus or thrombus and its sequela softening, not only affects the immediate tissues at the seat of the lesion, but also the surrounding cortical centres; and these disturbances of outlying areas, in a measure like the umbra and penumbra of a picture, may grow lighter or darker according to the severity of the original focus of disease, until these centres either recover their former functions or lose them entirely.