SELF-INFLICTED INJURY IN A CASE OF CHRONIC MANIA, FOLLOWED BY A CEPH- ALHÆMATOMA, FACIAL ERYSIPELAS, IN- CISION INTO THE BLOOD TUMOR AND A LUCID INTERVAL.

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CASES illustrating the influence of acute bodily disease upon the course of mental affections are numerous, and have probably come within the experience of every asylum physician, and were the case to be considered one simply showing the modifying effect of facial erysipelas in some cases of insanity, it might not be of sufficient interest to call for a report. There are, however, certain features in the history of this patient which make the case one of unusual interest. Besides the acute bodily disease there are other elements, which play an important part, in the causation of the lucid interval which follows, and whatever the more essential element may have been in the production of the cerebral change which resulted from the combination of these influences,¹ whether a counter-irritating effect of the erysipelatous inflammation, or grosser circulatory changes from actual hemorrhage and a diminished arterial tension, the result was a change from hopeless mental oblivion to a period of enjoyment of the normal action of the faculties of the mind.

In order that the nature of the case may be thoroughly understood, in giving the clinical history, I propose to consider: 1. History before admission, including the family history, habits and probable ætiology. 2. History from time of admission to the date of self-inflicted injury. 3. From the latter period through the lucid interval. 4. Subsequent history.

¹ McKennan, "Erysipelas as a Counter Irritant." *Pittsburgh Medical Review*, March, 1887.

1. T. D., male, born in Ireland, resides in Lycoming County, Pa.; by occupation a lumberman, single, and in indigent circumstances. Has usually enjoyed good health, never having been sick, with the exception of the ordinary diseases of childhood and an attack of gonorrhœa, resulting in stricture, a few years ago. The previous habits include the use of alcohol and excessive venery. Family history shows no insanity, nor is there any known predisposition to nervous disease. A history of tuberculosis is found on both the paternal and maternal sides, and uncles, aunts, brothers and sisters have died of phthisis.

Naturally of a fair intellectual capacity, he became insane in 1884, and for more than two years was treated in a hospital for the insane. He eloped, however, and for a few months he remained at home, although never at any time during this period was he rational. The symptoms have been those of mania, with hallucinations, illusions and delusions. Usually marked emotional exaltation, with sometimes noisy, incoherent talk, dancing, singing and laughing without cause; sometimes, although the face showed exaltation, there was reticence and suspicion, and in both conditions he was often homicidal. Has had the delusion that he was a priest, and, acting upon this belief, he several times tried to say mass in church. The hallucinations and illusions were shown by his actions. The assigned cause of insanity was the excessive use of alcohol.

2. Admitted to the State Hospital for the Insane at Danville, Pa., April 23d, 1887. *Æt.* 45. At this time, his physical health seemed fairly good, although he was thin in flesh; pulse 72, full and soft; tongue moist; bowels regular; skin normal; two scars on the forehead, one just above the supraorbital ridge and the other one inch and a half above it, both evidences of old scalp wounds, and both freely movable over the calvarium; pupils equal in size, and react to light and accommodation; reflexes normal; no evidence of specific disease. Mental condition is one of exaltation, not differing essentially from that existing before admission; memory seems much impaired, even when attention can be secured; talks incoherently; delusions of an exalted nature, aural and visual hallucinations; frequent attacks of noisy excitement.

In January, 1889, his bodily condition remained the same, but mentally there were evidences of more decided

deterioration, suggesting the approach of a terminal dementia. He was then very filthy in his habits; unable to care for himself; required assistance in dressing and undressing; no power of attention; memory very weak; unable to recognize friends, and shows no emotion upon seeing a sister from whom he has been separated for years; emotional exaltation but slightly marked; excited spells much less frequent than formerly, and more aimless; laid about the ward without interest in anything, and apparently oblivious to his surroundings.

3. During the night of January 28, 1889, he injured his head by striking it against the wall of his room, apparently from a suicidal impulse, breaking the skin and lacerating the tissues. As a result of this violence a cephalhæmatoma immediately formed, about half way between the middle of the sagittal suture and the squamous suture of the left side, and in thirty-six hours facial erysipelas started on the nose. The erysipelatous inflammation was superficial, but it extended over the face and the right side of the scalp and part of the left side, not, however, taking in the area of the hæmatoma. The constitutional disturbances were marked by great physical depression, and a temperature ranging from 100°F to 103°F. The course of the disease was about ten days in duration, ending favorably without intracranial complications. During this time the blood tumor was gradually increasing in size, and although aspirated several times and its contents almost entirely removed, more active interference during the course of the erysipelatous inflammation not being considered advisable, it quickly refilled.

On February 9th, it extended over most of the area, included between the sagittal and the left squamous and left sides of the coronal and lambdoid sutures. The pressure within being great, with a constant tendency to increase the area of the tumor, and absorption being out of the question, the patient was etherized at 10 P.M. and an incision was made the entire length of the tumor from before backward. A large amount of blood was removed, followed by severe hemorrhage from several branches of the left temporal artery, which were unusually large, evidently the source of the blood in the hæmatoma.

The hemorrhage was stopped by twisting all bleeding branches, and the wound dressed antiseptically with the expectation of healing by granulation. The patient

reacted slowly from the ether and was still somewhat dazed and confused, when left in the care of a night nurse. In his report, the nurse states that patient slept well during the night and awoke at 6 A.M., in the condition in which I found him later in the morning. At 9 A.M. the condition of the wound was good, but slight capillary oozing having occurred during the night. On entering the room, I was surprised to receive the greeting of good morning from him, and to see in the place of the vacant and stupid countenance, an expression of intelligence. The mental condition, which had been as usual the previous evening, had changed completely. He asked how long he had been sick; remembered striking his head, and said he had done so with a vague idea of removing something from it which was troubling him, and ought to come out; memory for incidents previous to his insanity was good, but most of the long period of mental confusion was entirely blank to him, although the real of the first period and the false of the second were not entirely distinguished by him; mentioned friends, places, work done and associations, of fifteen years before; inquired with affectionate solicitude for a sister whom he recollected as seen only years before, although she had visited him only a few weeks previous to this time; emotional condition seemed to differ but slightly from normal; affection for his family, hitherto absent, was natural; and in many other ways he gave evidence of a nearly rational condition. His condition at this time suggested to me that sometimes seen in the febrile delirium of acute disease, when delirium has ceased, but a jumbling together of the real and the false, and an indistinct memory of the imaginary suggests a slight remaining mental confusion, to be cleared away only by a systematic rearrangement of ideas, a separation of the shadowy memories from the actual existences. This remaining confusion soon disappeared, and he was removed to a convalescent ward.

From this time, the course of the case was one of gradually increasing physical strength and mental stability. He gained in weight, color improved, and his appearance was that of rapid convalescence from acute disease. One of his first acts during this period was to write to his sister, telling of his improvement, and expressing the hope that he might soon be entirely well and return to his home.

He spoke with gratitude of the care he had received

in the hospital (with other things, certainly an important indication of mental health, and one very refreshing to the physician). Most of his time was spent in reading, writing, playing games and doing work about his ward. During this entire period he was seen frequently by an eminent alienist, the late Dr. S. S. Schultz, for more than twenty years superintendent of this hospital, and pronounced by him, after the most careful study of the case, as apparently sane, and, but for the previous history and unusual character of the case, would doubtless have been discharged restored.

In this condition the patient remained for about three months, when a gradual mental change was noticed. The first thing to suggest its approach, was a complaint from the patient that he had hallucinations of sight and hearing, at first corrected by mental action and disbelieved as improbable. Then reticence followed by mental depression, showing that the mind, no longer able to correct these hallucinations, was under the control of the resulting delusions. From this condition the deterioration was rapid. He became careless in his dress and person; incoherent in talk; peculiar in actions; noisy excitement and violence followed in quick succession. Two weeks from the beginning of the change, he was in seclusion.

4. Since the relapse from his rational period, there has been little of interest in the history of this patient. After the acute exacerbation, he slowly developed a condition similar to that at the time of admission, but even at the present time, five years after his lucid period, he has not reached a condition so suggestive of terminal dementia as previous to that period, his condition being clearly one of chronic mania.

During these five years he has been bodily well, and has suffered no injury of the head, although he has several times attempted to injure himself.

To sum up the case briefly: A man, *æt.* 45; insane for more than five years (chronic mania with approaching terminal dementia); and without a lucid interval during this time, has an indistinct feeling of distress in his head, and causes a head injury from which a cephal-hæmatoma results, soon followed by facial erysipelas, involving most of the face and scalp, but not including the area occupied by the blood tumor. At the termination of the erysipelatous inflammation, an incision is made

into the tumor, followed by marked hemorrhage and in a few hours a rational mental condition is established.

The lucid period lasts for three months, then an acute exacerbation introduces another long period of mental confusion, now five years in duration.

There are several points of interest to me in this case: 1. The different elements which were instrumental in the production of this mental change.

Injuries of the head have apparently inaugurated a change toward improvement in mental disease, many times. Talcott² reports a case in which a blow upon the head was followed by lucidity in a few hours. Whatever the *modus operandi* in producing this effect may be, whether a readjustment of the molecular arrangement, or complicated cellular changes, it would seem that its connection with this case was too remote to be of importance, two weeks intervening between the injury and the result.

Hæmatomata of non-traumatic origin are unfavorable elements in prognosis, because of the morbid conditions which their occurrence indicates, although acute cases may recover after they have occurred, as in the case of an insane criminal reported by MacDonald.³ Hæmatomata of an entirely traumatic origin, however, would not thus be unfavorable. The influence of the occurrence of a cephalhæmatoma of this nature would seem to be limited to the possibility of turning the mind from a morbid introspection, to a more healthy contemplation of the outside world, but in our case the mental condition is so far deteriorated as to make this improbable. The hæmatoma *per se*, therefore, could hardly be an important element, although the circulatory changes, induced by the escape of so large an amount of blood from the vessels, might produce a modification of the physical conditions within the cranium.

The modifying influence of facial erysipelas in my experience has been almost entirely confined to cases of

² *American Journal of Insanity*, July, 1888.

³ *JOURNAL OF NERVOUS AND MENTAL DISEASE*, February, 1887.

a depressed character, and very marked, only in cases of less than two years' duration. Dinter⁴ reports two cases of melancholia with erysipelas, one of whom went on to recovery, the other was improved only for a single day and then returned to the former mental condition. Cases similar to the first of these seem to be most common.

In an epidemic⁵ of forty-four cases of facial erysipelas, during the winter of 1888 and 1889, in this hospital, the results of the disease upon the mental condition were as follows: Three were cases of acute melancholia, one of whom went on to a rapid recovery, one slowly improved from the time of the disease and one remained unchanged; the two former were simple melancholia, and the latter melancholia agitata. Nine were cases of chronic melancholia, two of whom were temporarily improved, in one, a case of melancholia agitata, the delusions were more marked and the agitation greater, and six remained unchanged. One was a case of stuporous insanity which seemed to begin to improve from the date of the sickness. Four were cases of acute mania, all of whom remained unchanged. Eleven were cases of chronic mania, one of whom had a lucid interval (the subject of this paper), the other ten were not appreciably affected. Three were cases of parietic dementia, two of whom showed greater deterioration, and one remained unchanged. Two of epileptic mania remained unchanged.⁶ One of senile dementia became mentally weaker. Ten of terminal dementia showed no change. In this series of cases, therefore, with two exceptions, all favorably influenced were of the class of melancholia. From these and similar observations on other cases, I am led to believe that erysipelas is more likely to influence favorably depressed cases of insanity of a com-

⁴ *Centralblatt für Nervenheilkunde*, February 15, 1889.

⁵ Origin of epidemic supposed to be the over-crowding of the wards.

⁶ In one, Status Epilepticus occurred. One of a series of twenty cases of "Status Epilepticus," *JOURNAL OF NERVOUS AND MENTAL DISEASE*, July, 1891.

paratively short duration. (I would say, however, that in an epidemic⁷ of another character the results were somewhat different). The importance of erysipelas in this case, therefore, does not seem to me to be as great as it would have been had the nature of the mental trouble been different, and, moreover, the improvement was not a gradual one extending through the course of the disease, nor did it begin at its termination, and while it was undoubtedly an element in the causation, it was not the only one.

There remains to be considered the operation. This involves two features: *a.* The operation *per se*, with the attending shock, which must have been of very slight importance. *b.* The loss of blood, with the resulting circulatory changes. The disrepute into which bleeding in insanity has deservedly fallen, as shown by the writings of such authorities as Pinel, Esquirol, Pliney Earle and Bucknill and Tuke, would seem to preclude the possibility of a beneficial influence resulting from it, and especially would this seem to be the case in a patient of this character, in whose condition not a single indication for depletion could be found. The mental change, however, followed after the hemorrhage, and without intending to follow too closely the *post hoc ergo propter hoc* argument, I am forced to believe that arterial hemorrhage was a factor in the production of this result in this particular case. Whether it was a simple removal of blood with general diminished arterial tension, or a proper readjustment of circulatory conditions within the cranium, or in some other manner, it would seem that this condition was partially responsible for this effect. I would conclude, therefore, that this result was brought about by a combination of influences, the method of working of which it would be difficult to explain.

2. The absolute return to mental integrity would suggest an absence of those atrophic and degenerative changes of the cerebral cortex, usually found in cases of

⁷ One hundred and four cases of dysentery among the insane, State Hospital, Danville, Pa.

chronic mania and terminal dementia. Would they have been found had the opportunity for post mortem examination occurred?

3. The sudden occurrence of the lucid interval, with five years before and five years after, without any suggestion of a normal period.

4. The extent to which a mind may be deteriorated, and the length of time which this may exist, without precluding the possibility of a restoration, for a time at least, to a rational mental condition.

5. The subjective condition which led to self mutilation as expressed by the patient's desire to get rid of something (perhaps pressure) within the skull. Was his purpose accomplished?

6. The method of return to his former mental condition by the acute exacerbation, its inception being by hallucinations, first controlled by, and later controlling the mind, as indicated by his talk and actions.

7. Finally, without wishing to generalize from this particular occurrence, the question naturally arises, would the same conditions, artificially produced, again result in a mental restoration *ad integrum*?

Three Cases of General Paralysis in Husband and Wife.—Dewey (*Chicago Medical Recorder*, Oct. 1893). As a contribution to the relationship between syphilis and the development of general paralysis, Dewey has recorded three cases in which a husband has contracted syphilis, and subsequently became insane with general paralysis, and the wife, with or without known syphilitic infection, has also subsequently followed her husband to the asylum with the same fatal disease, J. C.