

verified by making an incision through the dura. This was then closed and a celluloid plate inserted, to close the hole in the bone. The scalp was sutured without drainage. The wound healed by primary union, and the symptoms entirely disappeared.

THE RELATION OF MANIC-DEPRESSIVE INSANITY TO INFECTIVE-EXHAUSTIVE PSYCHOSES

By F. Ross Haviland, M.D.

The author stated that his object in presenting this review was to determine whether or not we could discover, in cases which showed essentially manic-depressive symptoms, features which could be attributed to infective-exhaustive influences. Kraepelin described delirium in manic-depressive insanity, for which he gave no infective-exhaustive etiology: on the other hand, he pointed out that in his collapse delirium, manic features were often present, and he called attention to the similarity of these two conditions. The differential diagnosis he made on the fact that collapse delirium followed exhaustive causes and showed more profound apprehension disorder and more lively hallucinations. In his 8th edition, he expressed the opinion that different forms of infective-exhaustive disorders could not be circumscribed from one another nor from other disease pictures, but he felt that further study would enable us to make the distinction.

The question as to whether or not the cases about to be considered differed from true manic attacks, uncomplicated by infective-exhaustive influences, was also to be raised, for upon this, perhaps, depended the prognosis for future attacks.

Dr. Haviland then reported in detail a series of cases where manic states followed some infective disorder, particularly during the puerperium, or after loss of blood or some debilitating physical condition, and in which there appeared to be a delirious admixture. He concluded from a study of these cases that it appeared that aside from delirium with organic features, we might have hallucinatory trends with more or less clouding about which we did not know whether they were endogenous or partial organic deliria. Such trends, or we might say such delirious phases, were evidently apt to occur with an infective-exhaustive etiology. However, they also seemed to come without it, as in dementia præcox and hysteria. Manic states showing essentially manic features, with delirious admixtures referable to an infective-exhaustive etiology, differed obviously in their cause and apparently in their mode of development and duration from manic attacks of unknown etiology.

The initial symptoms of manic depressive insanity were frequently described as being characterized by a tendency for the individual to become unusually strenuous or show some excessive energy, seeking new fields of activity, such excitability being mental as well as motor, but here we find the onset quite different. In all of the cases reported, with perhaps one exception, abrupt mental symptoms were displayed only following a definite exhaustive cause. The duration of the attacks appeared shorter than that which we usually expected to find in manic-depressive insanity, the average duration of nine cases being but five months and six days. It might be noted that the shortest duration of all was in the case showing the most severe infection, namely, puerperal

septicemia. Here the mental upset was of only two months and 25 days duration.

The prognosis in these cases for future attacks was perhaps somewhat better than in cases of manic-depressive insanity of unknown or indefinite etiology, for none of the ten which had been considered had ever had a former attack, only two showed evidences of a manic make-up, and none, up to the present time, had showed evidences of a recurrence.

Dr. A. R. Diefendorf, of New Haven, Conn., said he was not quite clear as to the viewpoint taken by Dr. Haviland: whether he intended to convey the idea that all the delirious phases of the manic states had an infective-exhaustive etiology. In that case, Dr. Diefendorf said, he did not think he could agree with him, because he had seen delirious phases in manic-depressive states alternating with stuporous phases of various degrees.

Dr. Jelliffe said that while listening to Dr. Haviland's paper, he was reminded of a few historical suggestions that seemed to him pertinent to the discussion. About 1886, Kraepelin erected his infectious and toxic group of manic-depressive insanity, and about three years later Krafft-Ebing incorporated these teachings into his well known text-book. This was the first distinct movement that set apart a large number of the then so-called manias into a more or less definite group, with an etiological background behind them. But there still remained a large residue of manias under the older grouping. Then Kraepelin formulated the outlines of the dementia præcox group, and finally, the erection of a fairly clear group of manic types of manic-depressive psychoses. The old group of mania now became split up into separate and fairly definite entities in terms of cause, symptoms, course, and termination. When an etiological factor stood out prominently, naturally the case was set apart from the pure manic group of manic-depressive psychosis, and the speaker thought that Dr. Haviland had done well to emphasize some of the factors from the clinical point of view that would separate the toxic-infective type from the manic-depressive. The Wassermann test, for example, had taken quite a number of the acute syphilitic types and passed them over into a realm where a direct therapeutic attack was possible, and it gave us a clear-cut conception of how to treat these cases and expect to get results.

Dr. Jelliffe said he took it for granted that it was more or less the purpose of Dr. Haviland's paper to emphasize the importance of constantly accentuating this gradually narrowing process of differential diagnosis and the insistence on clinical factors, as far as we can get them. In this connection he wished to call attention to the importance of a larger recognition of the blood and urinary findings and other accessory helps that might prove indicative of the particular type of toxic infection or exhaustion—the kind of work that Bruce had devoted so much time and attention to, and which, perhaps, had not proven as attractive to many as other lines of investigation.

Dr. Clark said that Dr. Haviland's paper was in the line of progress, and he thought that investigations in the directions indicated would lead to further disintegration of the manic-depressive group of disorders, and also give us a better idea of the prognosis of these cases, which at present was a very difficult problem. We are not now in a position to say whether or not a recurrence is apt to take place. This phase alone made the subject worthy of a very thorough investigation, as the prognosis exercised an immense influence not only on the life of the patient, but upon the whole family in which these disorders occur as well.

Dr. Haviland, in closing the discussion, replying to Dr. Diefendorf, said that in the cases he had reported, the symptoms occurred in patients who gave a definite infective-exhaustive etiology, but he had not intended to convey the idea that the delirious features could not occur in manic-depressive insanity without such an infective-exhaustive history.

In reply to a question, Dr. Haviland said that in none of the cases he had reported were there any symptoms of eclampsia or the toxemia of pregnancy.

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TRAUMATIC BRACHIAL NEURITIS, PROBABLY CAUSED BY TEARING OFF OF THE NERVE ROOTS

By William G. Spiller, M.D.

The man presented had had a severe injury of each upper limb, especially of the left. One seeing the case casually might say it was one of brachial plexus palsy and pass it over as presenting nothing more of interest. The case was like one reported by Dr. Mills, and later by Dr. C. H. Frazier, in which all the roots of the brachial plexus were evulsed from the spinal cord. The preserved sensation on the inner side of the arm in Dr. Spiller's patient probably was from the integrity of the intercosto-humeral nerve. Preserved sensation and burning pain on the outer side of the upper arm was present also in Dr. Mills' case. The text-books give the supply of this part of the arm as coming from the fifth cervical. Dr. Spiller thought the fourth cervical possibly by irritation might cause radiation of pain beyond the limits assigned to its distribution. Dr. Spiller believed the injury must be very close to the vertebral column or even within it, as the man had sympathetic palsy, shown by the narrowing of the palpebral fissure and contraction of the pupil. Dr. Mills' patient complained of having another arm. Dr. Spiller said he could not determine any hallucinations of this character in the case exhibited as he was unable to converse with the man excepting through an interpreter, the man being a Pole.

Dr. Mills' patient had symptoms of implication of the pyramidal tract. Dr. Spiller's patient had mild exaggeration of the tendon reflexes on the left side. A case had been reported by George F. Boyer in the *Proceedings of the Royal Society, Neurological Section*, Nov. 23, 1911, in which examination with microscopical study had shown a grave injury of the cord with evulsion of the seventh cervical root, and damage of the root above and of that below this level.

Dr. Charles K. Mills said that the case Dr. Spiller had shown was very like one which he had at the University Hospital, and which he reported in a paper published in the *Pennsylvania State Medical Society's proceedings* and also in the *Therapeutic Gazette*. The one which Dr. Mills reported was of interest as probably the first case in which the fact that evulsion of the roots had taken place was actually seen. The