

A Contribution to the Study of Acute Delirium, with especial Reference to its Bacteriology. Report of a Case. By WARREN L. BABCOCK, M.D. (*The Medical Record*, Aug. 1, 1896.)

Dr. Babcock observes at the outset of his article that the term "Acute Delirium" is applied by various observers with varying degrees of freedom, so that whereas one asylum will show only a small percentage of cases amongst its admissions, in another the proportion will be, in comparison, considerable. For such divergence no explanation is forthcoming, if the personal factor of the observer be omitted from consideration. We are not unfamiliar with like discrepancies in this country. Dr. Babcock truly observes that, "to the critical observer this contradiction of statements signifies that our knowledge of the exact nature of acute delirium is very meagre." To many it is about as difficult to distinguish between acute delirium and what Dr. Babcock terms "hyperacute mania" as it is to mark off influenza from a severe cold with evident contagious characteristics; and for a like reason, namely, ignorance of the precise nature of the diseases, acute delirium and influenza. Nevertheless the diagnosis in these respective instances is freely made, with a confidence which is bewildering to the critical-minded. Dr. Babcock refers with approval to a recent contribution by Dr. H. C. Wood, entitled, *An Excursion on Acute Delirium*. This writer, it appears, divides acute delirium into acute periencephalitis (with subdivisions "septic" and "idiopathic," the former due to the action of septic organisms on the brain, the latter depending on "emotional strain" or "functional excitement"); and, secondly, "an acute affection primarily centred in the ganglion-cells, but without lesions that can be demonstrated by our present process." Presuming that the title of the first variety (we leave aside the question of the etiology of the "idiopathic" subdivision, as demanding more critical consideration than space permits) is based upon pathological observation, we do not understand upon what evidence we are asked to believe in the pathological basis of the second of Wood's divisions.

Dr. Babcock's studies have been confined to an effort to determine the alleged bacterial nature of the disorder, acute delirium. The following germs have been found post-mortem by various observers in the cerebro-spinal fluid in

cases of acute delirium, but none is constant: pneumococcus, staphylococcus pyogenes aureus and albus, bacillus pyocyaneus. In addition, there is the bacillus found in the cerebro-spinal fluid by Raseri. Of these the pneumococcus appears the most significant. In Dr. Babcock's case the cerebro-spinal fluid was examined bacteriologically during life. Whilst clinically the case was one of acute delirium, pathologically the condition was an acute periencephalitis. The only history given is that the patient had no insane or neurotic relatives; he used alcohol and tobacco to excess; he had influenza some two months before admission. No mental symptoms were noted until ten days before admission. Patient was a painter by trade. The question of lead-poisoning is not referred to, and presumably was without bearing. A survey of the symptoms shows nothing specially noteworthy until the 29th day, when the note made was: "No subsidence of delirium; resistive about food; febrile symptoms prominent, resembling typhoid fever. Head slightly retracted, pupils greatly contracted; patient stupid and dull. Symptoms point to increased intra-cranial pressure. Operation of lumbar puncture decided upon." The operation was performed, an aspirating needle being inserted into the subdural space between the first and second lumbar vertebræ.

The author states that the cerebral pressure was evidenced to be high by the flow of fluid, which at the start was 44 drops per minute. The normal rate of flow is given at 6-10 drops per minute. Seventy-three c.c. of clear exudate was collected. The operation was followed by temporary improvement in the patient's state. He later relapsed, and passed into a state of coma. Death occurred on the 46th day. Bacteriological examination of the fluid (cer.-spinal) removed during life showed the micrococcus pneumoniæ crouposæ in large numbers, with an occasional streptococcus pyogenes. The same coccus was found in blood smears from the spleen. The author had no facilities for cultivating the germ; unfortunately rabbits inoculated with it showed symptoms of mild septicæmia. But other rabbits, inoculated with fluid from a puncture made eight minutes after death (which fluid was turbid, and showed a greater number of the two germs previously mentioned, especially the streptococcus, also pus-cells—these changes in the fluid after the first puncture might conceivably point to deficient precautions on that occasion), rabbits so inocu-

lated showed much more severe symptoms of infection. An examination of their blood revealed the same germ that was found in the spinal exudate in the other cases (micrococc. pneumoniæ).

As the author observes, "The subject needs further investigation by re-inoculation and culture experiments with the fluid obtained by puncture, before the identity of the germ can be established." In our experience cases of acute delirium are grave amongst the class of patients from which county asylums draw; and in hospitals for the insane, and institutions which receive patients from the upper classes, autopsies are but rarely obtainable. A further drawback to the elucidation of the malady is occasioned by the lack of bacteriological knowledge and equipment at asylums, with very rare exceptions. When the system of acute hospitals in connection with asylums, with well-trained staff and adequate laboratories, is established, we shall be more justified, as far as this country is concerned, in looking for more precise information upon many of the more recondite problems of insanity, and amongst them that of the pathology of acute delirium.

Des Variétés Cliniques de la Folie en France et en Allemagne.
Par J. ROUBINOVITCH. Avec une préface de M. le Professeur JOFFROY. Paris: Octave Doin, Editeur. 8, Place de l'Odéon; 1896; pp. 276. Prix 5 fr.

In these twelve lectures, delivered at the Asile Sainte-Anne, Dr. Roubinovitch has made the praiseworthy attempt to compare the views of the leading alienists of the French and German schools concerning certain forms of insanity and its classification. So long as we are not in possession of exact knowledge concerning the intellectual functions of the brain in health, on the one hand, and of the exact pathological changes corresponding to alterations in these functions, on the other hand, we cannot hope to devise a scientific classification of insanity free from criticism; but a perusal of this book shows, not only that we are not within measurable distance of this ideal, but that in the case of French and German writers on insanity, for instance, there is a wide divergence of views, even as to the basis on which a convenient clinical classification should be founded. Dr. Roubinovitch shows, from an analysis of a