

pulse, temperature, and respiration may all be of normal character. Although he may display neither conscious nor unconscious activity, yet he may respond immediately when questioned, and his short answers show no loss of memory or orientation. Having answered he resumes his seeming sleep, his attitude expressing a desire to be left alone. This somnolence may last for days or weeks, and then usually gradually disappears, leaving a state of self-commiseration, weariness, and sleeplessness which wears off slowly. The somnolence may deepen into a stupor, from which the patient is not easily roused to conscious response. In the night a restless delirium often appears, spontaneous movements and sounds being made. In the quiescent intervals the patient lies like a log, his face mask-like. This state may pass into one of catalepsy and catatonia. This condition may pass away, leaving confusion, faulty orientation, and memory-loss of the Korsakoff type, with poverty of thought, and lack of initiative. The stupor occasionally deepens into coma, which, as a rule, ends fatally. The coma may also appear somewhat suddenly, and be due not so much to the specific poison of the disease as to acidosis. McNalty attempts to explain these mental disturbances by the blocking of visual stimuli through closure of the eyes by ptosis. The blind tabetic is, however, not somnolent. The depth of the somnolence and also its duration are unrelated to the severity of the lesions, and while the lesions persist, the somnolence, as a rule, passes. The mental disturbance is typical of an intoxication, and is due to the specific action upon the cerebral nerve-cells of the toxin or toxins of the protozoa of lethargic encephalitis. The organ of expression of psychic processes is the musculature, but in this disease no perceptible muscular change may occur. The full bladder and crumpled bed may be ignored, although sensory stimuli stream into the brain. In the earlier stages, judging by the responses, the associative processes, though slowed and restricted, are still orderly. Later the commanded movement tends to repeat itself (to perseverate), and the required attitude to persist (catatonia). This morbid "set" is mainly due to a lack of associative capacity. This lack would take place if the toxins raised the resistance at the synapses to a height which prevented all ordered flow of association. This synaptic interruption probably occurs, for at this stage arise the hallucinations and delusions which are associated with the stupor. It may be that the synapse suffers earliest and most in the attack. Any poison, however, which reduces the vitality of the cell heightens the resistance at the synapse. The persistent sequence of severe intoxication, the psychoses, the Korsakoff phenomena, and even the protracted recovery, show that in addition to nutritive changes actual structural disturbances may also occur—a true inflammation with destruction of the processes of the brain cells.

C. W. FORSYTH.

*The Cerebro-spinal Fluid in Epidemic Encephalitis. (Journ. of Nerv and Ment. Dis., October, 1920.) Boveri, P.*

In this study 16 cerebro-spinal fluids were examined at different periods of the disease, from the fifth to the thirty-fifth day. Thirteen belonged to cases of the classical type of lethargic encephalitis; 2 were

of the myoclonic type, and 1 was a mixed form. Seven cases ended fatally.

*Pressure of the fluid* was found slightly increased in 8 cases, in the remainder it was normal. The *colour* was always clear. *Albuminoids* were found by Boveri's reaction in 7 cases but to a slight extent. The *reducing power* was lessened in 1 case (myoclonic type), increased in 11, and normal in 4. Two to 14 lymphocytes per c.mm. were found. Leucocytosis were present in 12 cases, with very low figures—4 to 6 per cent.

The author summarises his conclusions as follows: "(1) The cerebro-spinal fluid in encephalitis patients is not to be considered normal. (2) The alterations of the liquid are always slight either in connection with the cytological examination or in connection with the presence of albuminoids, and with reducing power. (3) In all phases of the disease the liquid always shows the same slightness of alterations; in its initial phase, however, it shows its anomalies more easily. (4) The different clinical types of epidemic encephalitis (lethargic form, myoclonic form, mental form) show no particularly characteristic cerebro-spinal fluid. (5) The slightness of the alterations and their uniformity in all phases of the disease are facts of great importance, especially in view of the diagnosis of epidemic encephalitis, so that it may be possible to differentiate this disease from the different forms of meningitis, particularly from tuberculous meningitis and syphilitic meningitis."

C. W. FORSYTH.

*Mental Forms of Epidemic Encephalitis* [*Les formes mentales d'encéphalite épidémique*]. (*L'Encéphale*, November, 1920.) Briand, M., and Rouquier, A.

The authors distinguish:

(1) The primitive mental form (confusional, delirious, or hallucinatory), often rapidly fatal. This form resembles the acute delirium of older authors.

(2) Psychopathic sequelæ (hypomania, depression, hebephrenia-catatonia, of variable evolution and prognosis), secondary to encephalitis.

(3) Motor manifestations, having many and various forms, either organic or mental, and upon which suggestion may graft hysterical symptoms.

These clinical forms appear to arise from different localisations, and very probably from variations in the pathogenic agent on the one hand and in the resistance of the soil on the other. W. J. A. ERSKINE.

*Brain Tumours as seen in Hospitals for the Insane*. (*Arch. Neur. and Psychiat.*, April, 1920.) Morse, Mary E.

Chiefly to inquire why in asylum cases brain tumour is so often undiagnosed, the writer has reviewed all the cases of brain tumour that came to necropsy in the last ten years in five State hospitals for the insane. Excluding gummata, they numbered forty-six, or about 1·7 per cent. of all necropsies (about the same percentage as for general hospitals). Frontal tumours predominated (33 per cent.). In only about 25 per cent. of the cases was tumour diagnosed during life, even tentatively. Most of the patients were admitted in the late stages of the disease. About