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 epidémique*]. (*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

30 *per cent.* appear to have been defective or psychotic before the tumour developed. The average age was fifty, which is considerably higher than that for brain tumours in general; 68 *per cent.* of the cases occurred between the ages of forty and sixty, whereas in general practice over 50 *per cent.* occur between twenty and forty, and there are many under twenty. Reasons why in asylums so few tumours are diagnosed are that more attention is paid to the psychiatric than to the neurological aspects of the cases, that ophthalmoscopic examination is not made as a routine measure in organic cases, and that, as most of the patients are middle-aged or elderly, there are frequently complicating factors, mental and physical, that in younger persons would be absent. In elderly people brain tumours may reach a large size without giving characteristic signs; the senile brain atrophy counter-balances the tendency to increase of intracranial pressure, and at this age the tumour is commonly of slow growth. In brain tumour in asylum patients of middle age the usual predominating symptoms are simple deterioration and apathy, especially in frontal tumour, but also in tumours of other regions. In a predisposed person a brain tumour may set up an independent psychosis. Attempts have been made by some authors to correlate particular mental symptoms with tumours of different regions, but the very thing that is most striking about this series of cases is the fact that they do not present clear-cut psychiatric pictures.

SYDNEY J. COLE.

---

4. Pathology.

Anatomo-pathological Study of Nervous Centres in a Case of Congenital Myxœdema with Cretinism [*Étude Anatomo-pathologique des Centres Nerveux dans un cas de Myxœdéma Congénital avec Crétinisme*]. (*L'Encéphale, November*, 1920.) *Marie, P., Tretiakoff, C., and Stumfer, E.*

There is a discordance between the intensity of the psychical troubles due to hypothyroidism and the apparent integrity of the encephalon which impedes our knowledge of the mode of action of humeral troubles on the psychical centres. The examination of the encephalon of a patient suffering from congenital myxœdema with cretinism (a woman who died æt. 36) revealed the existence of diffused and marked lesions, consisting in an intense infiltration of the vascular coats by iron compounds. These can explain, partly at least, the psychical troubles, and they also establish a relation with thyroid insufficiency.

The lesions affected the vessels of all the white matter of the cerebellum, the olives, and those of the lenticular nucleus on both sides. They consist in a great infiltration of the coats of the vessels of great and medium calibre, but especially of the capillaries, by an amorphous, sometimes granular substance coloured violet-black by hæmatin. Ferro-cyanide of potash with hydrochloric acid gives an intense blue colour, showing the existence of iron compounds. Very little calcium was present. Polychrome blue showed the deposits coloured an intense black and was the best method.