(*c*) In other types of intra-cranial tumour, increase of protein and globulin occurred in some cases but not in others. Changes in the protein and globulin of fluid removed by ventricular puncture are more frequent, but in supratentorial growths in one hemisphere the fluid removed from the ipsilateral ventricle will often contain more than that from the contra-lateral ventricle.

(*d*) In infiltrating growths, increase of protein and globulin in the lumbar fluid is more frequent in the glioblastomas and astrocytomas when the tumour is entirely subcortical. With the exception of tumours in the lateral recess of the posterior cranial fossa, increase of protein and globulin in the fluid obtained by lumbar puncture is much more frequent in growths above than in those below the tentorium. The largest increase of protein and globulin in the lumbar fluid was found in the multiform glioblastomas and in acoustic nerve tumours and in the ventricular fluid in the multiform glioblastomas.

When a brain tumour is suspected, an increase of protein and globulin in the fluid obtained by lumbar puncture is of some value for the diagnosis of the pathological nature of the growth. It may aid in distinguishing between intra-cerebellar and extra-cerebellar growths and between supra-tentorial infiltrating tumours that are entirely subcortical and those that involve the cortex as well.

J. L. FAULL.

Pre-paralytic Poliomyelitis: Its Diagnosis and Treatment. (*Birmingham Med. Rev., vol. ix, p. 225, Dec.*, 1934.) *Smellie, J. M.*

No disease due to a filterable virus is known that can be benefited by an antiserum after clinical symptoms have developed. An essential criterion, therefore, for successful serum therapy is the diagnosis of poliomyelitis in its acute or so-called pre-paralytic stage. This phase lasts from twenty-four to seventy-two hours, with moderate fever, the pulse-rate and prostration being out of all proportion to the temperature, which may be of the " dromedary " type. The most important physical sign is rigidity of the neck muscles, with unwillingness to flex the spine. The diagnosis depends on lumbar puncture. The pressure is increased, the fluid is clear, cells from 50 to 200 + per c.mm., and protein is increased; the sugar content is normal. The normal chloride content distinguishes it from tuberculous meningitis. As there are several varieties of poliomyelitic virus, it is wise to use pooled serum from different cases and different epidemics. The intravenous route is the best. It may be given with great caution intrathecally. The initial dose varies from 20 to 100 c.c., and depends, not on the age, but on the severity, and especially the duration of symptoms. If there is no effect it is repeated in eighteen to twenty-four hours. Lumbar puncture is useful, withdrawing only sufficient fluid to reduce the pressure to normal. Passive immunization by convalescent serum, adult serum or whole blood or antiviral horse-serum is of value as a prophylactic measure. The immunity conferred lasts only a few weeks, repeated doses being necessary in an epidemic. A formalized poliomyelitis vaccine has been produced and is on trial for the prevention of the disease.

JOHN D. W. PEARCE.

Symptomatology of Tumours of the Pons: Clinico-anatomical Contribution to the Patho-physiology of the Voluntary and Vestibular Reflex Movements of the Eyes [*Zur Symptomatologie der Ponstumoren: Klinisch-anatomischer Beitrag zur Pathophysiologie der willkürlichen und der vestibulär reflektorischen Augenbewegungen*]. (*Arch. f. Psychiat., cii, p.* 249, 1934.) *Sántha, K. v.*

In a case of an enormous tuberculoma of the pons the author finds, on caloric stimulation of the vestibular apparatus, a homolateral deviation instead of the normal heterolateral nystagmus, which fact he explains as being due to a disappearance of the quick phase. The case showed a paresis of the co-ordinated movements of the eyes. The author concludes that the common path of the voluntary eye movements and of the quick phase of the nystagmus is in the dorsal longitudinal bundle in the most oral part of the pons.

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