

Boyer, L. ALBUMIN CONTENT OF CEREBROSPINAL FLUID. [Paris médical, June 15, 1918.]

Boyer recommends, for quick and accurate results, the diaphanoscopic method. The spinal fluid is treated with a solution precipitating albumins and then compared with a scale of standard solutions of albumin treated with equal amounts of the precipitant. The precipitant preferred is made by mixing thirteen grams of crystalline salicylic acid with fifteen mls of pure sulphuric acid in the cold in a porcelain dish. The mixture liquefies, then crystallizes. It is fused again with gentle heat, allowed to cool, enough distilled water is added to make 100 mls, and the resulting solution is filtered. The standard albumin preparations are made preferably with a mixture of blood serum from several persons. To one ml of serum are added seventy-four mls of normal saline solution, thus forming a 1 in 1,000 albumin solution from which greater dilutions, viz., 0.2, 0.3, 0.4 in 1,000, up to 1 in 1,000, are made by adding suitable amounts of normal saline. In each of ten small tubes of equal size, preferably discarded surgical gut tubes, are placed two mls of one of these dilutions of the albumin solution and one ml of the precipitant solution; the tubes are then sealed and labeled, constituting permanent albumin standards. For receiving the spinal fluid another tube of exactly the same size is used, with 2, 3, and 6 mil marks filed on it. Spinal fluid is introduced up to the first mark, precipitant solution up to the second, and the tube stoppered, shaken a few times, and compared with the standard albumin tubes, likewise previously shaken. The comparison may be made either by looking through the tubes toward the source of light or by reflection, the tubes being well illuminated and looked at against a dark background. Where the opacity of a specimen is greater than that of the standard 1 in 1,000 solution, saline solution is added up to the 6 mil mark and the figure resulting from the comparison multiplied by two.

Larkin, John, and Cornwall, L. H. SPINAL FLUID IN POLIOMYELITIS. [Arch. Ped., Aug., 1918.]

Larkin and Cornwall, on a basis of the examination of the cerebrospinal fluid in fifty patients with poliomyelitis, believe that the increase of the pressure is the most persistent of the changes in the spinal fluid. It does not disappear for several months. From the tenth day onward it is present in nearly all cases. In 93.5 per cent. of fluids examined from the first to the fifteenth day of illness there was an increase, 93 per cent. showed an increase in globulin and appeared before the pleocytosis and persisted longer. This pleocytosis was present in 86 per cent. of fluids. The small lymphocytes predominated. Leucocytosis was highest during the first ten days, averaging 18,500. No curve noted with the colloidal gold reaction diagnostic of anterior poliomyelitis and there was no parallelism between the colloidal gold curve and

the other spinal fluid or blood findings. The higher curves were more frequent from the tenth to the fifteenth day. Sixty-three per cent. colloidal curves were humped, five fatalities of forty-nine cases, one fluid gave a curve to two, three fluids gave curves to three, and one fluid gave a curve to four. Three of the fluids from fatal cases were humped or of the syphilitic type, and two were descending, resembling the so-called paretic type.

Amoss, H. L. SURVIVAL OF POLIOMYELITIC VIRUS IN BRAIN OF RABBIT. [Journal of Experimental Medicine, March, 1918.]

In a study of the relation of the filterable virus of poliomyelitis to the rabbit, with the idea of bringing out resemblances to or distinctions from, the streptococcus, and of determining its power of survival in the brain *in vivo*, Amoss found that suspensions of the central nervous tissues of monkeys containing the active filterable virus of poliomyelitis might be injected into rabbits' brains without producing symptoms, if the volume of injection be not sufficient to cause increased intracranial pressure. This was the only symptom produced by the suspensions. Suspensions of the rabbit brain tissue from the original site of injection were then reinoculated in monkeys, and by this test the active virus of poliomyelitis survived in the brain of rabbits for four days, but after seven days, it could not be demonstrated by this test. The virus of poliomyelitis is not adapted to the rabbit; it neither produces lesions nor survives long in its central nervous organs, in this way differing from some streptococci cultivated from poliomyelitic tissues. A monkey was immunized against a streptococcus cultivated from human poliomyelitic nervous tissues and was tested for neutralizing action on the filtered poliomyelitic virus and for protection against an intracerebral inoculation of the same virus. The serum of this monkey agglutinated the strain of streptococcus in a dilution of 1:4,000. It was without neutralizing action on the filtered virus; it also was not protected against the effects of an intracerebral inoculation of the filtered virus. Amoss concludes that this work furnishes additional reasons for believing that the streptococcus cultivated from cases of poliomyelitis differs essentially from the filterable virus, and is not the microbic cause of epidemic poliomyelitis.

Peckham, F. E. POLIOMYELITIS. [J. A. M. A., Aug. 10, 1918.]

The author describes a technic of fascia transplant in poliomyelitis previously published by him in the Rhode Island Journal of February 2, p. 38. The method is described in a case report. The advantage claimed is that there is a long anchorage for the correction of valgus deformities, nearly the whole length of the leg, and the remaining good muscle, whether tibialis or common extensor, steadies the foot, while the Achilles tendon pulls up the heel. A second case is also briefly reported. The children not only walk but walk without braces.