

showed an increased passage of bromide into the spinal fluid, 53% showed a normal ratio, and 41.5% of the depressed cases and 28.6% of the maniacal cases showed low ratios. Cases of agitated depression all showed low ratios. As the psychosis subsided the ratios moved towards the normal value. In involutional melancholia, 35% showed low ratios, and 56.5% a normal ratio.

The authors also investigated the distribution of calcium, sugar and chloride in a number of these patients. They found the distribution of calcium abnormal in 33.3% of the cases, almost all of which showed normal values for bromide. There was a tendency for the cases with low bromide ratios to show, as a group, a slightly greater passage of sugar into the spinal fluid than the group with normal or high bromide ratios. The chloride ratio of distribution was normal in manic-depressive insanity.

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The Ganglioneuromas of the Central Nervous System. (*Arch. of Neur. and Psychiat.*, September, 1931.) *Alpers, B. J., and Grant, F. C.*

The authors discuss the twenty-one cases reported in the literature, together with one of their own. Twelve of these cases occurred at the base of the brain, and nine in the cerebral hemispheres. Of those in the cerebrum the majority were in relation to the temporal lobe. The ganglioneuroma is much more common in young persons, the age in this series varying from eleven to forty years. Amongst the clinical symptoms, epilepsy is very common. In practically every case there was some connection with the brain substance, showing that fundamentally the tumours are infiltrating. Many of the tumours have large cysts together with other smaller cysts, probably of a degenerative nature. The tumours are composed of ganglion cells in varying numbers and different stages of development, of neuroglia cells and fibres and, in some instances, of nerve-fibres, which are usually unmyelinated. In some tumours the ganglion cells are almost entirely immature, and in most of them the ganglion cells fall short of complete maturity. The usual site is the region of the diencephalon.

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7. Mental Deficiency.

Sex-linked Inheritance in Mental Deficiency. (*Amer. Journ. Psychiat.*, September, 1931.) *Rosanoff, A. J.*

The records of 95 pairs of twins were studied. One or both in each pair had mental deficiency. There were 35 monozygotic and 60 dizygotic pairs. Mental deficiency seems to be consistently more common in males than in females, and this was most strikingly shown in opposite-sex twins. Girls make a slightly better showing

than boys in intelligence tests and scholastic record. These facts suggest that there may be a sex-linked factor in some cases in the genetic history of mental deficiency; this conclusion is supported by a re-investigation of Goddard's work. The general relative excess of mental deficiency in the male sex is greater than can be accounted for by this sex-linked factor; there must be other factors at work. When both parents are mentally deficient, or when the father alone is so, an equal distribution of mental deficiency in the two sexes of offspring may be expected. When both parents are normal, or when the mother alone is mentally deficient, the distribution will not be equal in the two sexes of offspring.

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