II. BARRIER PERMEABILITY TO BROMIDE AND SODIUM CHLORIDE CONTENT OF THE CEREBROSPINAL FLUID*

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THE investigation was carried out in 247 cases of various psychotic reaction types. Chart I demonstrates that in 106 cases with sodium chloride contents ranging between 680 and 729 mg. per cent. the barrier permeability (determined by Walter's bromide test) is above normal in 34 per cent.; that in 141 cases with chloride contents varying from 730 to 779 mg. per cent. the barrier permeability is above normal in 19.9 per cent.

CHART I

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CHART II

Sodium Bromide Permeability and Sodium Chloride in Spinal Fluid

■ = P.Q. > 3.3 Decreased Permeability
 □ = P.Q. 2.9-3.3 Normal "
 ▨ = P.Q. < 2.9 Increased "

Chart II presents our findings in organic psychosis, schizophrenia and epilepsy ; in each of these psychotic types the cases are subdivided into two groups, according to the sodium chloride content of the cerebrospinal fluid. The chart shows that neither in organic psychosis nor in schizophrenia is the distribution of cases with normal, low and high permeabilities markedly affected by the spinal fluid chloride concentration. In epilepsy the series of cases with relatively high chloride values contains a lower percentage of cases with high permeability than the group of cases with comparatively low chloride contents.

From these results we infer that in Walter's bromide test the chloride content of the cerebrospinal fluid, like the protein content, is only a contributing factor in the determination of the distribution of bromide between blood and cerebrospinal fluid.