cerebral edema developed immediately after pneumoencephalography and died. Autopsy showed cerebral edema, especially marked in the cerebellum. Plexus chorioideus was normal and no space occupying lesion was seen. In the two autopsied cases, no sinus thrombosis was observed.

The etiology of high intracranial pressure in such cases is obscure and probably various. Prognosis is often favorable and symptoms disappear spontaneously. In 2 lethal cases, cause of death was considered iatrogenic. In management of intracranial hypertension without focal signs, just watching the course in parallel with careful control of water metabolism is recommended. If choked disc persists, subtemporal decompression is the treatment of choice.

61. The Study on the Effects of FRUCTON-M, Mixture of 45% Fructose Solution and 15% Mannitol Solution, for the Reduction of Increased Intracranial Pressure

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Osmotherapeutic agents are indispensable in the field of neurosurgery. In the 22nd and 23rd Annual Meeting of Japan Neurosurgical Society, we had reported the effects of hypertonic mannitol solution which is able to replace with hypertonic urea solution, and emphasized hypertonic mannitol solution is an ideal one, except great amount of solution has to be infused into the circulation system by application. This disadvantage of hypertonic mannitol solution was the point which should be improved in near future.

The authors had developed new osmotherapeutic agent, FRUCTON-M which contains 45% fructose solution and 15% mannitol solution with ratio of 3:1 after basic research of osmotherapeutic effect of 50% fructose solution.

For the sake of usage, FRUCTON-M was used at a rate of 7 cc/kg for 30–40 minutes by intravenous instillation.

The cerebrospinal fluid pressure drop rate was 41.5–95.2%, and 71.4% the average.

Reducing action lasted 120–360 minutes, and 246 minutes on the average.

The secondary rebound overshoot was observed in 9.5% of all cases, and completely same frequency and grade with hypertonic mannitol solution.