

Type 1; relative delayed peak time of head count, ventricular reflux 1/2 of cases, moderate clearance.

Type 2; early peak time, without ventricular reflux, early clearance.

Type 3; delayed peak time, with marked ventricular reflux, delayed clearance.

The usefulness of RI cisternography in evaluation of microcephalus was reported.

Spontaneous Recanalization of Occcluded Cerebral Vessels and Its Effect for Regional Cerebral Hemodynamics

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Regional cerebral blood flow and its vasomotor response for CO₂ inhalation and hypertension were examined in 50 cases with cerebral infarction using the ¹³³Xe intraarterial injection method and the rCBF imaging which was reported by us previously. Results of rCBF studies were analyzed with the special interests in its sequential change with lapsed time from onset and with spontaneous recanalization of occluded vessels.

Results were summarized as follows.

- 1) Spontaneous recanalization in the occluded vessels were observed in 20 cases and, in most cases its occurred within 2 weeks from onset.
- 2) Luxury perfusion was observed in 65% of

recanalized cases but, in occluded group, it was proved only 3 cases out of 30 cases.

- 3) Luxury perfusion was proved in the cases of not only very acute phase but also 3 weeks after onset.
- 4) Disturbance of CO₂ reactivity and autoregulation of cerebral vessels were observed in most cases of acute phase. CO₂ reactivity was seemed to recover after 3-4 weeks after the onset but disautoregulation was prolonged to several month.
- 5) Vasomotor reactivity of recanalized group was almost same as occluded group.

Study on the Unsuccessful Cases of Cisternography

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In the cisternography, injected tracer sometimes leaves from the subarachnoidal space and it disturbs the reading of the cistern. Three hundred and thirty seven cases (373 times) of cisternography examined in our laboratory for the last 4 years were investigated for the purpose to clarify the reasons of such unsuccessful cisternography. The results were as follows:

- (1) In total, there were 22% of unsuccessful cisternography accompanied with various grade of brain scan. Completely unsuccessful cases which were not of use were recognized in 5% (19 cases).

- (2) There was no remarkable correlations between several radiopharmaceuticals supplied by 3 different companies with results of cisternography.
- (3) After investigating the unsuccessful cases, it was found that the reason attributed to the factor of the patient himself was 60%, the malinfusion of spinal tap was 30% and the leakage was 10%. As the possible factor of the patient, increased permeability of blood and spinal fluid barrier or compensatory absorption at spinal level could be considered.
- (4) On the other hand, images of malinfusion of