

Even in the microcephalic infants, persistent chronic subdural hematoma is found and the use of radioisotope cisternography is presented for the

evaluation of disturbed C.S.F. dynamics in these patients.

### **Clinical Observation of R. I. Cisternography and C-T Scanning on Communicating Hydrocephalus**

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<sup>111</sup>In D.T.P.A.-Cisternography and C-T Scanning were Applied on 23 Cases of Communicating Hydrocephalus.

In D.T.P.A.-Cisternography on 4 cases of Normal Pressure Hydrocephalus after lumbal-puncture of 1 mCi in D.T.P.A., R.I. refluxes into the Ventricle within 3 hrs.

It also stayed in the Ventricle for 24 hrs or 48 hrs, and did not flow into the subarachnoidal Space. C-T image of these Cases showed remarkable Ventricle enlargement.

R.I.-Cisternography on the other 9 Cases of communicating Hydrocephalus, R.I. refluxed into

the Ventricle once, but it streamed to the cerebral convexities afterward. C-T image on these Cases showed moderate Ventricle enlargement.

<sup>111</sup>In R.I.-Cisternography on 3 Cases of cerebral atrophy, reflux of R.I. into the Ventricle was not observed, but its concentration in the parasagittal area was delayed. In C-T image of these 3 Cases, marked atrophy and Ventricle enlargement were seen.

In 2 Cases of porencephalus, findings of both C-T Scanning and R.I.-Cisternography were agreed.

### **Diagnostic Value of Radionuclide Cisternography and CT Cisternography**

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278 radionuclide cisternograms were obtained in neurosurgical diseases, such as communicating hydrocephalus after SAH, skull base tumor, developmental anomaly, CSF rhinorrhea, subdural hematoma, spinal lesion et al., these 6 years. Combined examination of radionuclide (<sup>169</sup>Yb-DTPA) cisternography with CT cisternography was performed on 28 patients, who were divided 3 groups which were altered CSF dynamics, skull base tumors and developmental anomaly. CT cisternography using the water-soluble contrast medium metrizamide is superior to the radionuclide cisterno-

graphy in detecting detailed morphological changes of CSF spaces, especially in detecting the skull base tumors. In studying of CSF dynamics radionuclide scan and CT scan show almost the same findings of the CSF flow. Radionuclide cisternography is useful to get a general information of CSF flow, laterality of convexity flow and the site of cisternal block. Concerning to the absorption of CSF, it is suspected that these two methods can not always show the same findings. Radionuclide cisternography is useful in catching the general image of various intracranial anomalies.