Cerebrospinal Space Scintigrams

Report 5: Cisternography with $^{111}$In-DTPA

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Cisternography with In-DTPA was performed in 42 patients with head injury etc.

The patients were divided into the following groups by R.I cisternography.

Group A1 consisted of patients who were infused with R.I subarachnoidally by lumbar punction, but showed no appearance of the R.I in the parasagittal area with the R.I ventricular reflux even 24–48 hours later.

Group A2 comprised patients in whom the ventricular reflux of R.I once occurred, but the R.I appeared in the parasagittal area later.

Group B1 was composed of patients who showed the slow appearance of R.I in the parasagittal area.

Group B2 showed normal cerebrospinal fluid flow.

Of the 42 patients, 11 were classed to Group A1, 12 to Group A2, 5 to Group B1 and 14 to Group B2.

The peak of the curve of disappearance of R.I from the blood was noted three hours after infusion, while the disappearance of R.I was delayed in not a few patients classed to Groups A1 and B1.

No side effects were noted in any of the patients.

RI Cisternography with $^{111}$In-DTPA

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In contrast to $^{169}$Yb-DTPA, the usage of $^{111}$In-DTPA, a new radiopharmaceutical, is not as yet popular for RI cisternography. This report deals with a comparative study of these two radiopharmaceuticals for RI cisternography.

For the past one year 301 RI cisternographies were performed in 160 cases at the Neurosurgical Service of Shizuoka Rosai Hospital. Among those $^{169}$Yb-DTPA was used in 137 occasions, $^{111}$In-DTPA in 53, and both $^{169}$Yb-DTPA and $^{111}$In-DTPA in 30. The results of this study were as follow.

1. $^{111}$In-DTPA was chemically stable in intrathecal administration.

2. A reactive fever was minimal with $^{111}$In-DTPA if any.