

## Plenary Session

### Studies of the Colloidal $^{113m}\text{In}$ Preparation for Various Organs Scanning by Kit System and its Distribution on the Rabbit

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We make a description of devising method that prepare colloidal  $^{113m}\text{In}$  sterilization of solution at a little 3-5 min. and distribution on the rabbits about those radiopharmaceuticals.

#### Kit reagents

Eluant: 0.04N HCl

Kit A (in Vial): involve  $\text{FeCl}_3 \cdot 6\text{H}_2\text{O}$  of 1 mg and NaCl of 40 mg into 0.04N HCl of 0.3 ml.

Kit B (in Ample): involve 0.2N NaOH of 1 ml and  $1/5\text{M} \cdot \text{CH}_3\text{COONa}$  of 0.5 ml.

Kit C (in Ample): involve 10% gelatin (pH 7.0) of 1.5 ml.

#### The use and distribution

It is divided three course to use of kit system previous describing and to be administered by intravenous injection  $900 \mu\text{Ci}$  each on the rabbits. (It is three to five rabbits in a group.) We examined about distribution of 30 min., 100 min., and 200 min. after. Colloidal preparation required time of 3 to 5 min.

1. A (eluate of 5 ml all content) + B + C, pH of 5-6, 7.5-8.0 ml all content, about  $200 \text{ m}\mu$  particle size, which is absorbed liver and spleen more than other organs.
2. A (eluate of 5 ml and content) + C + B, pH of 5-6, 7.5-8.0 ml all content, about  $10 \text{ m}\mu$  particle size, which is absorbed liver and bone marrow more than other organs.
3. A (eluate of 6 ml all content) + C + B, pH of 3.0-3.5, 8.5-9.0 ml all content, which exist in blood having high concentration for long hours. State of ion (partly colloid)

#### Result

Colloidal  $^{113m}\text{In}$  kit system that we devised is able to prepare simple state of  $^{113m}\text{In}$  in solution due to change the use, and it is possible to prepare three sorts by this method as follow.

1. Colloid for Liver and Spleen.
2. Colloid for Liver and Bone marrow.
3. Ion for Blood pool.