Bleomycin is a great problem.

So, we studied the methods of the removal of $^{57}$Co-Bleomycin from urine. In this paper the results by the following four methods are described.

1) Boiling Method

The urine is boiled with the filter paper. Water is escaped in vapor, and as a result $^{57}$Co-Bleomycin is adsorbed in the filter paper. $^{57}$Co-Bleomycin is not volatilized. The removal efficiency of filter paper was more than 96% under different conditions of urines.

2) Charcoal Method

(Removal of $^{57}$Co-Bleomycin from urines by "SIRASAGI-A" charcoal) a. Centrifugging Method  

b. Column Method  
c. Precipitation Method.

The removal efficiency from 1500 ml of urine by each of the three method was about 95% with 4-5 g of charcoal at 18°C, that is, there was no difference. In order to use the charcoal with good performance, it was necessary to be removed within two days.

Survey of Radiation Hazards of Personnel's Finger from Handling Radioisotope

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The usage of the short lived radionuclide has been considerably increased in the clinical nuclear radiological field. The radiation dose to the fingers of the radiation workers is considered to be increased, since the radionuclides are injected to the patient's vein manually. In this point of view, the survey of the radiation hazard in the fingers of radiation workers were planned.

Questionnaire cards randomly delivered to 682 members of the Japanese Society of Nuclear Medicine. Of these, 135 physicians, 60 radiological technicians and 27 others were responded, so that the percentage of recovery was 32.5%.

The following items—(1) an occupational category (2) the numbers of year engaged in nuclear medicine (3) activity in mCi of radionuclides using in a week (4) whether the syringe was always shielded or not (5) survey of the hazard of finger according to the symptoms of finger of which the personnel is found (6) survey of the personnel's finger-prints—were investigated.

As the results, the abnormal finger-prints were found in 3 physicians. The usage of shielding of the syringe was found in 25.3%.

This investigation will be continued for a certain period by the serial finger-print survey for detection of radiation hazards in the workers finger.