

Q. Institute and Control

R. Others

Monitoring of ^{131}I in Exhalation, Sweat and Saliva of ^{131}I Patient

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The activity of Iodine-131 in exhalation, sweat and saliva of patients administered orally Na^{131}I 2 to 5-mCi for hyperthyroidism and 30 to 50-mCi for carcinoma were monitored and the ratio to administered activity were obtained.

Exhalation; patients were weared a mask with charcoal activated filter paper and ^{131}I in exhalation was trapped with the mask during one hour using a vaccum pump of air flow 25-l per minute at any time. The activity of the filter paper was measured by NaI (TI)-scintilation detector and 400 channel pulse hight analyzer. The maximum activity in exhalation was 300-nCi to 3.5-nCi. The discharge rate per one hour was about 10^{-5} to 10^{-7} of the administered activity and the average rate was 3.2×10^{-6} .

Sweat; The sweat of patient was gathered during one hour by putting a pair of vinyl gloves n patient's both palms gotten adehydrated and weighed filter paper. The discharge rates of ^{131}I into sweat of total body estimated from the activity per gramm of sweat and insensible respiration were 10^{-1} to 10^{-5} of administered activity.

Saliva; The saliva was gathered at one-hour after administration, three-hours after and any adequate hours after from patient. The highest activity was obtained between one to three hours after administration and the activity of saliva per ml was 1.5% of administered activity. The average rate of ^{131}I into saliva per ml was about 6.3×10^{-3} of administered activity.

The Evaluation of Testosterone Potentiated P-32 Thrapy for Intractable Pain Secondary to Bone Metastases

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This therapy was effective for intractable pain secondary to multiple bone metastases, especially from prostate and breast. Dramatic pain relief was obtained in all cases of 7 prostatic cancer and 2 cases of 4 breast cancer. At least in one case apparant recalcification was seen on radiograph. About 13% of injected radioactivity was excreted into urine for 28 days. There was no relationship between excretion ratio and degree of

pain relief, original organs and extention of metastatic lesion. Bone marrow suppression had been considered as a prominent side effect in this therapy, but generally it was transient and not so critical. Some problems, such as optimal dosage, selection of cases, side effects and objective evaluations are to be resolbed in further investigation.