

The Experience of ^{18}F Bone Scanning

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Our experience has been presented, because the supply of ^{18}F has become first possible in Japan, by the courtesy of Dr. S. Okano of the Physical and Chemical Research Institute, Tokyo.

^{18}F has many physical and physiological advantages to ^{85}Sr , especially in low radiation dose.

^{18}F was administered per os, 0.5 to 2.0 mCi each, to 13 cases having 29 bony metastatic regions. The absorption through stomach has completed within about 40 min., and its uptake in the bone reached to the maximum after

1 hour. Early scans were taken successfully at 1.5 hours after administration.

It was shown that of the 15 cases shown positive for malignancy on the radiograph, RI image failed to find only four (2 of which received irradiation previously); of the 17 cases giving positive RI image, 6 had either negative or inconclusive radiographs (4 of which developed definite metastases after 2 to 3 months.)

The advantage of the coincidence scan using ^{18}F to ^{85}Sr was shown in a model experiment.