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PROSPECTIVE STUDY TO ASSESS THE CLINICAL EFFICACY OF BONE SCINTIGRAPHY. Y.Akiyama, N.Yui¹, T.Matsumoto, T.Iinoma, Y.Tateno, T.Yamasaki, T.Ishikawa², T.Nakajima³, K.Machida, J.Nishikawa, M.Iio⁴, K.Uno⁵, G.Uchiyama⁶, M.Miki, K.Kawakami⁷, A.Kubo, Y.Takagi⁸, H.Murata⁹, K.Kusakabe¹⁰, and H.Oyamada¹¹. ¹Chiba Cancer Cent. Hosp., ²Natl. Inst. of Radiol. Sci., ³Saitama Cancer Cent. Hosp., ⁴Univ. of Tokyo, ⁵Chiba Univ., ⁶Yamanashi Med. Univ., ⁷Jikei Univ. Sch. of Med., ⁸Keio Univ., ⁹Tokyo Metrop. Geriatr. Hosp., ¹⁰Tokyo Woman's Med. Coll., ¹¹Natl. Cancer Cent. Hosp.

The purpose of this study is to evaluate prospectively the value of radionuclide bone scans at the preoperative assessment of carcinomas of the breast and prostate carcinomas. For each patient under study, three kinds of sheet are filled by doctors. Number of data that three kinds of sheet were filled and have been stored in a electric computer are about three hundred for carcinomas of the breast and fifty for prostate carcinomas. These data are analyzed by using ROC method. Radionuclide bone scan is useful clearly for prostate carcinoma. But we can not decide whether it is very useful or not very for carcinomas of the breast in present data. In the near future, we can reach a conclusion to this question as the data increases.

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COMPUTERIZED SCINTIGRAPHIC FINDING RECORDING AND REPORTING WITH VOICE ENTRY. H.Ikehira, T.Yamasaki, T.Matsumoto, T.A.Iinuma, Y.Tateno, F.Shishido, K.Inamura, Y.Kubo. National Institute of Radiological Sciences, Chiba, Research Institute of Brain and Blood vessels AKITA, Akita, and NEC, Co.

We reported in the 22nd Annual Meeting of this society. At last time we developed an automatic data acquisition and reporting system with voice entry.

This system consists of micro computer PC-8800(NEC) and speech recognizer DP-200 (NEC). Our first application of this system is for liver scintigraphy. The report of the liver scintigraphy were entered from speech recognizer about following items in Japanese.

Now this time we applied this system for bone scintigraphy based on last liver scintigraphy's system.

There are two main purpose in this study one is the save effort to input the data in computer and the another is the study of ability for the analysis of the imputed data.

This system is used the word input and Aolking system with computer; so the about 360 words are registrated in memory.

And after the entering data, the scintigraphic report are printed in Japanese and chinese characters with printer.

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X-RAY CT, SCINTIGRAM, ECT AND IMAGE COMPOSITION OF THE BONE. T.Ishimaru, K.Sueyoshi, A.Shin, T.Sakata, K.Yamasaki, T.Fukuda and H.Akagi. Dept. of Radiology, Osaka Medical College

In the studies of bone, we made an attempt to display the images obtained by X-ray CT, ECT and scintigram on the same image plane of the CRT and other image displaying devices. We also made an attempt to composite these images.

The main apparatus we used is TVIP-2100 image processor and its peripherals. The image data were put into the system as video signal, using TV camera, and stored on the floppy diskettes and MT. Various image data of the same patient were stored collectively thus providing the reduction of keeping spaces, and preventing loss and changes.

The recalling of the data and observation were capable whenever necessary. At the same time, the data processing between the various images or processing separately produced increase of information compared to individual examination, thus thought to be usefull in obtaining definite diagnosis. At present moment, the image composition still owe much of its process to manual burdens, intricate and lacking in reproducibility. Therefore automatic procedure by computer is expected in near future.