

On Anatomical Marker of Scintillation Camera

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On scintiphotos taken with a scintillation camera, if anatomical landmarks are shown everywhere the doctor has interests, it will be very helpful for diagnosis. Those landmarks can define the relationship of the area where radioisotopes are accumulated with anatomical position and also give the information of size and/or area on scintiphotos.

Several methods, by which anatomical landmarks are given on scintiphoto, have been presented. Among them, using additional radioisotope of small mechanical size placed on the patient and making bright spot on scintiphoto, or using lead absorber and making dark mark on scintiphoto are commonly used. Those could not easily give a sharp and clear landmark.

An electronic anatomical landmarker which Nuclear Chicago has placed on sale, can give with only a simple operation sharp and clear marks of cross-shaped and/or continuous line.

Utilizing linear and sine/cosine potentiometers in a polar coordinate measuring system, the distance (radius) and angle of the positioned stylus from a reference is converted into electronic

positioning coordinates for the display oscilloscope and other system recording accessories. These coordinates thereby accurately indicate the position of the stylus over the patient anatomy allowing electronically clear markings to be superimposed on the gamma image.

A hand ehld control is used to select the generation of either a marker cross (+), or continuous line as an electronic pencil for tracing the path of the positioning stylus over the confour of selected anatomy.

Three operator controls are located on the scinticamera electronic console. The COL-LIMATOR selector switch provides the proper X-Y format for either pinhole collimator or others. An INTENSITY control permits optimization of electronic mark to the gamma image contrast for the selected study exposure setting.

A calibrated MAGNIFICATION control allows adjustment of the proper scale relationships and distance separations of anatomical landmarks with respect to the field size of the various collimators.