

29**GA-67 SPECT IMAGE AND X-RAY CT COMPOSITE
IMAGE IN DIAGNOSIS OF THE HEAD & NECK REGION**

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The use of SPECT-images does not always show precise localization of the tumor. In this study, SPECT-images were superimposed on X-ray CT images. A marker was attached to the patient's body surface while taking the SPECT-image and X-ray CT image in order to adjust the two different kinds of images. The X-ray CT image data was input into a SPECT-Unit data processor and then both images were displayed mixed with each other using the marker for image alignment. This study was performed in 28 patients with head and neck region tumors. The method of the study was found to be useful for diagnosing the head and neck region.

The combination of SPECT and X-CT image revealed a better rate of tumor detection and the location of the abnormal mass compared to a planar image and the SPECT image respectively more clearly indicated.

The composite image is also useful to ; diagnosis of the extend of the primary tumor prior to radiation therapy; detection of tumor size in the case of head and neck metastasis alone; to evaluate the state of region after operation.
