

peak, depending on the adjustment of the control. By using the dual source (patient), the technologist inadvertently set the window "sill" to include some of the Tc-99m peak. The resulting scintigrams represented the Tc-99m distribution. Readjustment of the PHA using a pure In-111 source avoided the problem (Fig. 2D).

CONCLUSIONS

Suspected infectious disease of the skeleton and joints can be successfully evaluated by concomitant Tc-99m HMDP and In-111 WBC imaging. However, In-111 WBC imaging, when performed within 24 hr of the bone scan, is highly technique-dependent. To avoid artefacts of technical origin the following recommendations are suggested:

1. Energy resolution of the camera system must be optimized to prevent significant Tc-99m/In-111 crosstalk. Energy resolution should not deteriorate on camera imaging systems if stringent maintenance schedules are followed. Slight deterioration of energy resolution will not manifest itself in routine quality-assurance procedures. Uniformity-correction mechanisms can not be expected to maintain optimal energy resolution of a gamma camera. Hence, one should not imagine them to be a "cure-all" for degradation of camera performance and to take the place of FWHM determinations. Annual or bi-annual FWHM determinations should be considered as an adjunct to the routine quality-control procedures for imaging equipment.

2. Once energy resolution is optimized, a 10% window centered around the 173 keV In-111 photopeak may be used on the Picker Dynacamera 4/15 when In-111 WBC imaging is performed within 24 hr of a Tc-99m administration. Reduction of window width does conserve some sensitivity for indium imaging.

3. The PHAs must be adjusted using a pure In-111 source.

Failure to adhere to any of the above precautions may lead to artefactual and erroneous results. These artefacts may or may not prejudice other camera systems currently in use. Investigations of energy resolution, peak overlap, and peak adjustment must be initiated by individual users as they appear necessary.

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Erratum

The Erratum appearing in Volume 24, p. 443, 1983, should appear as follows:

[¹¹C]Spiroperidol: Synthesis, Specific Activity Determination, and Biodistribution in Mice. [*J Nucl Med* 23: 437-445, 1982]. J.S. Fowler, C.D. Arnett, A.P. Wolf, R.R. MacGregor, E.F. Norton and A.M. Findley.

Page 439. Line 19, ppm should read ppb.

Page 439. In "Synthesis of

[¹¹C]Spiroperidol" line 6, 0.20 ml of 0.05 M NaOH should read 0.020 ml of 0.05 M NaOH