



**FIG. 1.** Tc-99m MDP image before radiation therapy (left) and repeat image with bone agent following radiation therapy and surgery (right).

anterior wall was better delineated in the 180° scan (Fig. 1B). The effect of attenuation was not significantly different between the two scans. With 360°, decreased uptake was noted in the posterolateral wall, probably due to attenuation and scatter by the "spine".

In clinical cases, moreover, the effect of attenuation does not seem to be much different between them, so perhaps the 180° approach may not prejudice qualitative assessment of a perfusion defect, even in the basal portion of the myocardium.

As for quantitative assessment of Tl-201 SPECT imaging, we have to consider two points: infarct sizing, and estimation of Tl concentration. Infarct sizing can be performed as far as the SPECT images are geometrically reliable. In this sense, I believe a 180° scan permits infarct sizing as accurately as, or even better than, a 360° scan, because of better spatial resolution without apparent geometrical distortion. Estimation of Tl concentration, on the other hand, is quite difficult in the 180° scan. It is one of the formidable problems to be solved in the field of SPECT. But if an ideal method of attenuation and scatter correction should become available for SPECT, the 360° scan should be used for a better quantitative assessment of Tl SPECT imaging, since the 360° data may be necessary for these corrections.

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### Soft-Tissue Uptake of Tc-99m MDP in Secondary Scrotal Lymphedema

Bone scintigraphy has proven valuable in both osseous and nonosseous conditions. We report a case of increased scrotal soft-tissue activity in a patient with secondary scrotal lymphedema.

A 77-yr-old man with a history of stage C adenocarcinoma of

the prostate and a negative pelvic node dissection was referred to the nuclear medicine department for a metastatic evaluation. A Tc-99m MDP bone image revealed a large scrotum (Fig. 1, left) consistent with the clinical diagnosis of scrotal lymphedema secondary to surgery. The patient received definitive cobalt radiotherapy of 5040 rad (CGy) to the whole pelvis and additional 1640 rad (CGy) to the prostate gland through a smaller field. Scrotal size increased and small amounts of lymphatic drainage were noted. He subsequently underwent reduction scrotoplasty with excellent results. The reduction of the scrotal size was noted on a follow-up bone scan (Fig. 1, right).

Although secondary scrotal lymphedema is primarily diagnosed by clinical examination, the nuclear physician, however, should be aware of this relatively rare complication and occasionally may be the first one to recognize this condition.

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### REFERENCE

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