

Summary

Nuclear Medicine of the Thyroid and Parathyroid Glands

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Nuclear medicine plays an important role in the diagnosis and treatment of thyroid and parathyroid disorders.

Basic nuclear medicine in the diagnosis of thyroid and parathyroid disorders and our clinical study on ^{131}I treatment for differentiated thyroid cancer are described.

Characteristics of thyroid, parathyroid, tumor scans and typical bone scintigrams in hyperparathyroidism are presented.

Combined $^{99\text{m}}\text{Tc}$ -MIBI/ $^{99\text{m}}\text{Tc}$ -HSA-D SPECT imaging clearly demonstrated localization of ectopic parathyroid adenoma.

Very interesting uncommon three cases of thyroid

cancer are presented. $^{99\text{m}}\text{TcO}_4^-$ thyroid scan in the first patient demonstrated intense tracer uptake in the lymph node metastasis from papillary microcancer. Post-therapy ^{131}I scan following total thyroidectomy visualized multiple pulmonary metastases. The second patient with metastatic follicular cancer developed thyrotoxicosis with high TSH receptor antibodies. Post-therapy ^{131}I total body scan in the third patient with papillary cancer demonstrated large skull metastasis. Cardiac blood pool and large blood vessel visualization was also clearly seen at this time.

Key words: Thyroid scan, Parathyroid scan, Bone scan, Tumor imaging, ^{131}I therapy.