
Parathyroid scintigraphy with Tl-201 chloride and Tc-99m pertechnetate was studied in 168 patients(pts.) with hyperparathyroidism from 1980 to 1984. Pathological diagnosis was made by operation in 62 pts. as follows: the primary is 37 pts. including carcinoma in 6, adenoma in 27 and hyperplasia in 2 and the secondary is 25 pts. with hyperplasia.

In primary cases, excellent diagnostic results were obtained, with sensitivity of 83% and specificity of 97% and all parathyroid glands more than 0.5g weight were detected. In secondary cases, the sensitivity was 71% in spite of high specificity of 89%.

The application of computer analysis by profile curve parallel to long axis of each thyroidal lobes resulted in similar to those of visual examination in the secondary. This study indicates that the radionuclide methods may be variable for detecting parathyroid lesions in primary case, but further study should be necessary in the secondary.