

Summary

Radioiodine Treatment of Patients with Autonomously Functioning Thyroid Nodules at Outpatient Clinic

Junichi TAJIRI

Tajiri Thyroid Clinic

[Objectives] This retrospective study was aimed at evaluating the efficacy of radioiodine (RI) treatment for patients with autonomously functioning thyroid nodules (AFTN).

[Methods] The subjects were 38 patients including 26 cases of toxic adenoma (TA) and 12 cases of toxic multinodular goiter (TMNG), who attended our clinic from July 1999 to April 2005. RI treatment was performed in the outpatient clinic. Thirteen mCi (481 MBq) of ^{131}I were administered to all patients, and additional administrations were performed at an interval of 3 to 4 months when not sufficient. Patients with TA were followed for 31.9 ± 18.7 months (5–68 months) and those with TMNG for 40.5 ± 18.3 months (10–63 months). A curative effect was defined as absence of TSH suppression.

[Results] After RI treatment, hyperthyroidism improved, associated with reduction in size of the goiter or nodes in all 38 cases. Hypothyroidism was observed in one of 19 patients with TA in whom RI was performed under a suppressed TSH level, while all 6 patients whose serum TSH levels were not suppressed at the time of the treatment, developed into hypothyroidism ($p < 0.001$).

[Conclusion] RI treatment was effective in patients with AFTN. RI is an alternative treatment of AFTN. Development of hypothyroidism in patients with TA can be prevented by maintaining a suppressed TSH level when RI is administered.

Key words: Autonomously functioning thyroid nodules, Toxic adenoma, Toxic multinodular goiter, Radioiodine, Out-patient clinic.