

Outcome of ablation of thyroid remnants with 100 mCi (3.7 GBq) iodine-131 in patients with thyroid cancer

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A retrospective study was conducted on 186 patients with differentiated thyroid cancer without metastases who received an ablative dose of 100 mCi (3.7 GBq) iodine-131 after total thyroidectomy. Six months to one year after ablation, 155/186 patients (83%) had a negative scan. Diagnostic scanning with 5 mCi (185 MBq) performed 72 h or 3 months before ablation did not interfere with treatment success compared to patients not submitted to pre-therapy scanning. Pre-ablation cervical uptake values < 2% were associated with a higher ablation efficacy (94%), from 2 to 5% showed 80% success and values > 5%, 60% ($p < 0.05$). There were no significant differences between the responsive and no responsive groups in terms of age, sex, histological type or size of the primary tumor. 11% of the patients with low stimulated Tg (< 2 ng/ml) presented discrete thyroid bed uptake on follow-up diagnostic scan (< 0.5%) without definitive residual disease and 89% had negative uptake on scan. The patients with Tg > 2 ng/ml presented thyroid bed (10/12) or ectopic (2/12) uptake on follow-up diagnostic scan. An ablative dose of 100 mCi shows a high rate of efficacy, especially when cervical uptake is < 2%; no difference was noted between patients assessed by scan within 72 h or 3 months before treatment and those not scanned; follow-up diagnostic scan can be avoided in low risk patients with stimulated Tg < 2 ng/ml.

Key words: ablation, thyroid remnants