PROPRANOLOL AND $^{131}$I IN THE TREATMENT OF

DIFFUSE THYROID HYPERPLASIA WITH HYPERTHYROIDISM

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RESULTS

There was prompt symptomatic improvement in all of the patients. This took place sometimes within a week or 10 days of the initiation of propranolol treatment and was manifested by a drop in pulse rate and moderate to striking relief of agitation and nervousness. Duration of propranolol therapy was quite variable, lasting up to 4 weeks, depending on the evaluation of the clinical need for its administration by the patient's physician. There were no side effects reported. There have been no clinical or laboratory relapses to date. The followup periods have ranged from 2 to 16 months. The response pattern of the thyroid-function tests was predictable. There was uniform depression of uptake in all cases at the 2 month followup, while normalization of $T_3$ and $T_4$ levels lagged behind in four of the patients. By the fifth-month followup none of the thyroid-function tests were at the hyperthyroid level. The 24-hr uptake values had returned to normal in 13 of the patients. Five patients had developed clinical and/or laboratory signs of hypothyroidism and were put on replacement therapy. No additional instances of hypothyroidism have been detected as of this time.

DISCUSSION

As stated by Hadden et al (2) patients with thyrotoxicosis treated by this method have been rendered comfortable and free from symptoms of hyperthyroidism. Their management has been simplified, and no side effects were noted. It is generally accepted that the symptomatic effect of propranolol therapy in patients with thyrotoxicosis is due to its beta adrenergic blocking effect. However, a recent communication by Burke (4) suggests that there may be a direct effect on the basal and stimulated glucose consumption by the thyroid cells.

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CONCLUSIONS AND SUMMARY

Eighteen consecutive patients with diffuse thyroid hyperplasia and thyrotoxicosis have been treated with a single dose of 5 mCi of $^{131}$I in capsule form and 10–40 mg q.i.d. of propranolol (a beta adrenergic blocking agent). Symptomatic improvement was immediate. There have been no laboratory or clinical relapses during followup periods of up to 16 months. The uniformly good symptomatic response and absence of side effects recommend additional evaluation of this combined therapeutic approach.

REFERENCES