

ANALYSIS AND COMMENTARY ● ● ● ● ●

In European regions with relatively low iodine intake, there is a nearly 10% incidence of AIT in patients on amiodarone. Bartalena, Martino, and associates in Italy were the first to show that prednisone was effective in the treatment of type 2 AIT (1). The main goal of the current study was to show that amiodarone could be continued while patients were undergoing therapy for type 2 AIT, and that the condition would resolve. This contradicts the usual approach of stopping amiodarone when either form of AIT occurs, as has been recently recommended (2). Bogazzi et al. reported that 5 of 7 patients who continued amiodarone during prednisone therapy for type 2 AIT relapsed after prednisone was withdrawn (3).

The decision to use methimazole for all three groups is surprising. It is the mainstay of treatment in addition to withdrawal of amiodarone in type 1 AIT, in which there is overproduction of thyroid hormone, but it is not recommended when the diagnosis of type 2 AIT is made with confidence. The Italian group has shown

that methimazole is ineffective in type 2 AIT in comparison with prednisone (4).

The second aim of the current study is curious. Perchlorate was given with methimazole in group B, and with methimazole and prednisone in group C. The usual reason to administer perchlorate is to deplete the thyroid of iodide that comes from amiodarone; perchlorate is used in type 1 AIT, but not in type 2 AIT. The study showed that 71% of group B who only received perchlorate and methimazole had improvement, an unexpected finding. Nevertheless, prednisone was the more effective therapy. There are patients who are thought to have a combination of types 1 and 2 AIT. “Shotgun” therapy with prednisone and methimazole is effective in these patients, and I use it initially in patients who have severe AIT and in whom the diagnosis of type 1 versus type 2 is unclear. Interestingly, sestamibi scans may be helpful in this differential diagnosis (5). Type 1 patients take up the sestamibi tracer and type 2 patients do not.

— Jerome M. Hershman, MD

References

1. Bartalena L, Brogioni S, Grasso L, Bogazzi F, Burelli A, Martino E. Treatment of amiodarone-induced thyrotoxicosis, a difficult challenge: results of a prospective study. *J Clin Endocrinol Metab*. 1996;81:2930-3.
2. Bogazzi F, Bartalena L, Martino E. Approach to the patient with amiodarone-induced thyrotoxicosis. *J Clin Endocrinol Metab* 2010;95:2529-35.
3. Bogazzi F, Bartalena L, Tomisti L, Rossi G, Brogioni S, Martino E. Continuation of amiodarone delays restoration of euthyroidism in patients with type 2 amiodarone-induced thyrotoxicosis treated with prednisone: a pilot study. *J Clin Endocrinol Metab* 2011;96:3374-80. Epub August 24, 2011.
4. Bogazzi F, Tomisti L, Rossi G, Dell’Unto E, Pepe P, Bartalena L, Martino E. Glucocorticoids are preferable to thionamides as first-line treatment for amiodarone-induced thyrotoxicosis due to destructive thyroiditis: a matched retrospective cohort study. *J Clin Endocrinol Metab* 2009;94:3757-62. Epub July 21, 2009.
5. Tanda ML, Bogazzi F, Martino E, Bartalena L. Amiodarone-induced thyrotoxicosis: something new to refine the initial diagnosis? *Eur J Endocrinol* 2008;159