Amiodarone-induced thyrotoxicosis: clinical course and predictors of outcome

David Conen, Ludovic Melly, Christoph Kaufmann, Stefan Bilz, Peter Ammann, Beat Schaer, Christian Sticherling, Beat Muller & Stefan Osswald

OBJECTIVES: This study sought to determine the clinical course and predictors of long-term outcome in patients with documented amiodarone-induced thyrotoxicosis (AIT). BACKGROUND: Amiodarone-induced thyrotoxicosis is a condition that is difficult to manage, in particular because of the long half-life of amiodarone. Data on optimal treatment for AIT are scarce. METHODS: We performed a retrospective review among patients with documented AIT at a tertiary care center. Baseline characteristics, treatment received, laboratory parameters, and events during follow-up were evaluated. The predefined composite end point consisted of the following AIT-associated complications: death, heart transplantation, hospitalization for heart failure, myocardial infarction, stroke, hospitalization for arrhythmia management, or hospitalization for treatment complications. RESULTS: Eighty-four patients were included in the present analysis; 27 patients received prednisone for AIT. There was no difference in time to normalization of free thyroxine between those receiving and those not receiving prednisone. Long-term follow-up showed high morbidity and mortality; 47 patients (56%) reached the primary end point. Patients receiving prednisone had a worse outcome than those not receiving prednisone (p = 0.003). Although patients received prednisone for 84 +/- 65 days, curves started to separate only 12 months after the initial diagnosis. CONCLUSIONS: Patients with AIT have a high event rate during follow-up. Prednisone had no effect on time to normalization of thyroxine levels and was associated with an increased event rate. Importantly, AIT-related problems must be expected late, at a time when thyroid function is under control.