

Our experience in the treatment of patients with severe dilatative cardiomyopathy and amiodarone — induced thyrotoxicosis

Matias Trbušić*, Danijel Planinc, Ivo Darko Gabrić, Ozren Vinter
University Hospital Centre Sestre milosrdnice, Zagreb, Croatia

Amiodarone-induced thyrotoxicosis (AIT) is a serious medical problem especially in patients with dilatative cardiomyopathy because of a substantial rate of morbidity and mortality. Patients usually present as worsening of arrhythmias and congestive heart failure. Two forms of AIT have been described. Type I occurs in patients with a preexisting adenomatous goiter and results from the excessive hormone production secondary to iodine excess. Type II is found in patients without a preexisting thyroid disease and results from the chemical-induced thyroiditis which causes the follicular damage and release of preformed hormone. AIT develops in 2-3% of patients in iodine sufficient areas such as Croatia. AIT can be managed medically or surgically. Available medical treatment regimens are complex, not uniform and do not consistently provide success. Thyroidectomy was previously considered to be the last treatment option, when medical therapy failed. However, in new reports, thyroidectomy is considered to be an initial treatment option despite the operative risk.

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*Address for correspondence: Klinički bolnički centar Sestre milosrdnice, Vinogradska 29, HR-10000 Zagreb, Croatia.

Phone: +385-99-3787-064

E mail: matias.trbusic@gmail.com

We represent two cases of AIT in patients with previously diagnosed dilatative cardiomyopathy with severe systolic dysfunction of the left ventricle who were taking amiodarone because of the documented non-sustained ventricular tachycardia. Dominant symptoms include refractory congestive heart failure with symptoms of hypo-perfusion and recurrence of arrhythmias (non-sustained ventricular tachycardia in both patients and atrial fibrillation with rapid ventricular response despite the medical treatment in one patient). Both patients did not have the preexisting thyroid disease and AIT type II (or “mixed”) was presumed. Echocardiography showed the impairment of the left and right ventricular ejection fraction and atrioventricular regurgitations. Prolonged treatment with high doses of dobutamin was needed to establish hemodynamic stabilization. AIT was treated by discontinuation of the drug, moderate doses of methyl-prednisolon (40 mg/day) and propiltiouracil (300 mg/day). After 4-6 weeks of the treatment, an improvement was achieved and the patients could wean off dobutamin. Free T4 and T3 started to decline in controls. The patients were discharged from the hospital after 2 and 3 months after the treatment in stable condition, in functional class NYHA II/III, as before AIT developed.

Conclusion: AIT in patients with congestive heart failure is a challenging problem, but with aggressive and intensive medical treatment surgery it can be avoided.

KEYWORDS: amiodarone, thyrotoxicosis, heart failure.

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Literature

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