

Oral amiodarone was effective and safe for recent-onset atrial fibrillation

Peuhkurinen K, Niemelä M, Ylitalo A, et al. Effectiveness of amiodarone as a single oral dose for recent-onset atrial fibrillation. *Am J Cardiol.* 2000 Feb 15;85:462-5.

QUESTION

What is the effectiveness and safety of a single oral dose of amiodarone in patients with recent-onset atrial fibrillation?

DESIGN

Randomized (allocation concealed*), unblinded,* placebo-controlled trial with 24-hour follow-up.

SETTING

{2 hospitals in Finland}†.

PATIENTS

72 patients > 18 years of age who had recent-onset atrial fibrillation (< 48 h) continuing for > 3 hours in the hospital, had a ventricular rate > 50 and < 150 beats/min, were hemodynamically stable, and had a normal serum potassium level. Exclusion criteria were thyroid disease; history of myocardial infarction, pulmonary edema, sick sinus syndrome, or high-degree atrioventricular block; anemia; hypovolemia; stroke; sepsis; renal or hepatic disease; child-bearing potential; or use of sotalol or other class III antiarrhythmic drugs. 62 patients

(86%) (mean age 59 y, 73% men) had follow-up at 24 hours.

INTERVENTION

Patients were allocated to receive oral amiodarone, 30 mg/kg of body weight {*n* = 36}‡, or placebo {*n* = 36}‡.

MAIN OUTCOME MEASURES

Rates of conversion to sinus rhythm at 24 hours (verified by Holter monitoring), hemodynamic measurements, and adverse events.

MAIN RESULTS

10 patients were excluded from the analysis because of conversion to sinus rhythm before monitoring or technical failure of monitoring. More patients who received amiodarone converted to sinus rhythm at 24 hours than did those who received

placebo {*P* < 0.001}‡ (Table). No differences existed between patients who received amiodarone and those who received placebo for median time to conversion (8.7 vs 7.9 h), hemodynamic measurements, or adverse events.

CONCLUSION

A single oral dose of amiodarone was effective and safe in patients with recent-onset atrial fibrillation.

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*See Glossary.

†Information provided by author.

‡*P* value calculated from data in article.

Oral amiodarone vs placebo in patients with recent-onset atrial fibrillation§

Outcome	Amiodarone	Placebo	RBI (95% CI)	NNT (CI)
Conversion at 24 h	87%	35%	145% (58 to 318)	2 (1 to 4)

§Abbreviations defined in Glossary; RBI, NNT, and CI calculated from data in article.

COMMENTARY

Atrial fibrillation occurs in approximately 5% of persons > 65 years of age and is often associated with hypertension, coronary artery disease, mitral stenosis, hypoxia, anemia, sepsis, or thyrotoxicosis. It may also occur spontaneously in healthy persons or as a consequence of ethanol intoxication or physical or emotional distress. Atrial fibrillation increases the risk for stroke and causes disabling palpitations and fatigue in many patients.

Decompensated atrial fibrillation should be emergently treated with electrical cardioversion. To prevent stroke, patients who have symptoms of atrial fibrillation for > 48 hours should receive anticoagulation treatment before cardioversion. Anticoagulation therapy should also be used in patients with chronic atrial fibrillation. Unfortunately, only about one third of these patients are treated with warfarin, and of those, about half have international normalized ratio values out of the target range (1).

In this study by Peuhkurinen and colleagues, oral loading with amiodarone effectively restored sinus rhythm. Amiodarone is probably the most effective drug for converting atrial fibrillation (2) and maintaining sinus rhythm (3). Maintenance of sinus rhythm reduces fatigue, prevents disabling palpitations, and probably decreases the risk for stroke, even in patients who have received

anticoagulation therapy. Unfortunately, almost 20% of patients cannot tolerate amiodarone.

Radiofrequency ablation of the atrioventricular node and permanent pacing is safe and effective in patients with refractory atrial fibrillation (4). Further studies are needed to compare ablation and pacing with amiodarone.

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References

1. Samsa GP, Matchar DB, Goldstein LB, et al. Quality of anticoagulation management among patients with atrial fibrillation: results of a review of medical records from 2 communities. *Arch Intern Med.* 2000;160:967-73.
2. Zaremski DG, Nolan PE Jr, Slack MK, Caruso AC. Treatment of resistant atrial fibrillation. A meta-analysis comparing amiodarone and flecainide. *Arch Intern Med.* 1995;155:1885-91.
3. Roy D, Talajic M, Dorian P, et al. Amiodarone to prevent recurrence of atrial fibrillation. Canadian Trial of Atrial Fibrillation Investigators. *N Engl J Med.* 2000;342:913-20.
4. Wood MA, Brown-Mahoney C, Kay GN, Ellenbogen KA. Clinical outcomes after ablation and pacing therapy for atrial fibrillation: a meta-analysis. *Circulation.* 2000;101:1138-44.