Conclusions: The combination of ibutilide as a first-choice drug and of amiodarone infusion in case of ibutilide failure provides an effective, rapid and safe algorithm for restoration of SR in patients with AF or AFl of recent-onset.

545 Effect of short-term intravenous amiodarone loading on the success rate of direct current transsthoracic cardioversion in patients with persistent atrial fibrillation

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Background: In patients with persistent atrial fibrillation (AF) sinus rhythm can be restored in 65 – 90% by direct current transsthoracic cardioversion (DCC). Attempts have been made to improve the success rate by pharmacological pretreatment with antiarrhythmic agents. Studies with oral application of amiodarone have demonstrated an increased DCC efficacy in AF after complete amiodarone loading with a cumulative dose of 10-12 g. The influence of pretreatment with short-term i.v. amiodarone – loading on the efficacy of DCC is still controversial.

Methods: 60 patients with persistent AF referred for DCC were prospectively randomized into two matched groups: in group A (n=30, 16 male, 14 female, age 70 ± 10 years) 300 mg amiodarone was infused over a 30-minute period prior to DCC. Group B (n=30, 18 male, 12 female, age 72 ± 6 years) without antiarrhythmic pretreatment served as a control.

Results:

<table>
<thead>
<tr>
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<th>Group A with treatment (300 mg Amiodarone i.v.)</th>
<th>Group B without treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of AF (days):</td>
<td>127 ± 487</td>
<td>157 ± 428</td>
</tr>
<tr>
<td>Left atrial diameter (mm):</td>
<td>45 ± 4</td>
<td>44 ± 4</td>
</tr>
<tr>
<td>Restoration of sinus rhythm:</td>
<td>24 (80%)</td>
<td>24 (80%)</td>
</tr>
<tr>
<td>No success:</td>
<td>6 (20%)</td>
<td>6 (20%)</td>
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</tbody>
</table>

Sinus rhythm was stabilized following DCC with conventional antiarrhythmic therapy (propafenone, sotalole, amiodarone). Forty-three patients (71.7%) remained in sinus rhythm at the time of discharge.

Conclusions: In this study the overall success rate of DCC in patients with AF was 80%. DCC was not more successful in the group of patients pretreated with 300 mg amiodarone intravenously as a short-term infusion. Possibly, unlike in ventricular fibrillation, the effective amiodarone serum levels achieved by intravenous short term infusions are not sufficient to increase the success rate of DCC.

546 The role of amiodarone in recent onset atrial fibrillation after Ibutilide has failed to restore sinus rhythm

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Background: Ibutilide is a class III antiarrhythmic drug that is used for the cardioversion of atrial arrhythmias, but it can cause torsades de pointes. Amiodarone also is used for the cardioversion of atrial fibrillation and prolongs the QT interval but rarely causes torsades de pointes. However, there are few studies for the sequential use of the two agents. The purpose of this study was to assess the efficacy and safety of cardioversion with combination therapy in patients with recent onset atrial fibrillation.

Methods and results: The study included 30 patients with a first episode of recent onset atrial fibrillation (less than 48 h), without valvular heart disease. All patients were hemodynamically stable with an ejection fraction of 50±10%, without chest pain or electrocardiographic changes compatible with ischemia. Ten patients had a history of coronary artery disease. Firstly, all patients had taken a full dose of Ibutilide and two hours after the administration of Ibutilide had completed none of the patients was on sinus rhythm. Ibutilide was given as an infusion over 10 minutes. For patients over 60 kgr the dose was 1mg and for patients under 60 kg the dose was 0,01 mg/kg. After completion of the first dosage, a second dose of equal size was administrated. To the patients who took the full dose of Ibutilide and failed to restore sinus rhythm and furthermore refused electrical cardioversion, we decided to proceed to intravenous administration of amiodarone. Amiodarone was given intravenously in a three phase infusion over 24 hours: 150 mg over 10 min, followed by 360 mg over the next 6 hours (1mg/min), followed by 0,5 mg/min. After 24 ± 10 hours of the administration of the amiodarone 27 patients were on sinus rhythm. There was no episode of non-sustained torsades de pointes or hypotension following the administration of the two antiarrhythmic agents.

Conclusion: The administration of amiodarone, after the use of Ibutilide had failed to convert to sinus rhythm recent onset non valvular atrial fibrillation, resulted in 90% cardioversion of atrial fibrillation to sinus rhythm.

548 Influence of amiodarone therapy on P-wave dispersion and P-wave duration in patients with paroxysmal atrial fibrillation

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The prolongation and nonuniform atrial conduction has been shown in patients with atrial fibrillation. Recently P-wave dispersion has been suggested to be useful in predicting patients with paroxysmal atrial fibrillation. There is lack of data with respect to influence of amiodarone on P wave dispersion.

Methods: We studied 40 patients in sinus rhythm with a history of paroxysmal AF (25 M, 15 F, mean age 59±9 years) referred to amiodarone therapy for rhythm control. The 12 leads surface ECG was obtained before drug administration and after 14 days of amiodarone therapy (1200 mg/day p.o.). P wave duration was calculated from all ECG leads. P wave dispersion was defined and calculated as the difference between the maximum P wave duration and minimum P wave duration.

Results: Of the total 40 patients, 34 (85%) were in sinus rhythm during 14 days follow-up. The P wave maximum was found to be longer during amiodarone therapy compared with the value before drug administration but the difference was not significant (135±18 ms vs. 127±14 ms; NS). In contrast, the P wave dispersion was significantly lower after 14 days of amiodarone treatment (35±12 ms vs. 25±14 ms; p<0.05).

Conclusion: The effect of short-time amiodarone therapy on P-wave calculated on standard electrocardiogram is significant only for P wave dispersion. The prolongation of P wave duration after amiodarone administration was small and not significant. The reduction of P wave dispersion might represent the electrical stabilization during amiodarone therapy.