as additional controls. Hence, responses to acetylcholine (Ach) and A23187 were improved with spironolactone (Table 1) while responses to endothelin-independent agonist nitroglycerin and phenylephrine remained unaltered (pk relaxation of 100 ± 3 vs. 100 ± 3% and constriction of 103 ± 22 vs. 103 ± 24% in placebo vs. spironolactone, respectively).

Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Ach</th>
<th>A23187</th>
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<tbody>
<tr>
<td>PK Relaxation (%)</td>
<td>67.3 ± 9.1</td>
<td>7.6 ± 0.2</td>
</tr>
<tr>
<td>PK Relaxation (%)</td>
<td>70.4 ± 2.6</td>
<td>7.4 ± 0.1</td>
</tr>
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*P < 0.05 vs. placebo.

Time to thrombosis was decreased with aldosterone infusion (13±2 vs. 22±2 minutes in control, p<0.05) by spironolactone administration (11±2 vs. 22±2 minutes, p<0.05 by ANOVA).

Conclusions: MR antagonism improves endothelial function and attenuates thrombotic response to injury while aldosterone potentiates thrombotic response to injury. These findings indicate an emerging role for aldosterone receptor antagonists in atherothrombosis.

1032-132

Short-term Effect of Oral Anticoagulant Therapy on Documented Left Atrial Thrombi in Candidates for Percutaneous Transvenous Mitral Commissurotomy


Background: The presence of left atrial thrombus (LAT) in mitral stenosis patients is a contraindication to percutaneous transvenous mitral commissurotomy (PTMC). Although resolution of LAT after long-term oral anticoagulant therapy has been documented, its short-term effect, which would be more clinically important, has been less clearly established.

Objectives: To estimate the disappearance rate of documented LAT among candidates for PTMC who were treated with oral anticoagulation for 6 months and to determine its significant predictors.

Design: Prospective cohort study.

Methods: Between August 1996 and February 2002, a total of 607 consecutive PTMC candidates underwent both transthoracic and multiplane transesophageal echocardiographic studies (TTE, TEE). Of these, 219 patients demonstrated LAT by TEE and were given oral anticoagulation (INR ≥ 2.0 ≤ 3.0). The fate of LAT was studied at 6 months using both TTE and TEE.

Results: Among 219 PTMC candidates with LAT (mean age 39.6±7.4 years, range 19-62 years; 73% females), complete resolution of LAT was demonstrated in 53 cases at the first 6-month follow-up, with an overall disappearance rate of 24.2% (95%CI: 18.5% to 30.3%). All 53 patients subsequently underwent successful PTMC. None of the cases, with LAT in the atrial body (n=27), had LAT resolution. Among the 166 patients whose LAT persisted, the LAT size had nevertheless been reduced by approximately 3% from the baseline (p<0.001). By using multiple logistic regression analysis, the significant predictors associated with LAT resolution included a NYHA Class of 1 or 2 (OR=11.11: 1.07: 1.20, 10.0), a left atrial spontaneous echo contrast of less than or equal to 4 (OR=5.13: 1.39: 2.43, 12.5), a left atrial spontaneous echo contrast of less than or equal to 4 (OR=5.13: 1.39: 2.43, 12.5), a left atrial spontaneous echo contrast of less than or equal to 4 (OR=5.13: 1.39: 2.43, 12.5), and an INR of more than or equal to 2.5 (19.5: 3.3: 11.13).

Conclusions: A quarter of PTMC candidates with LAT who avoided heart surgery by successful PTMC after 6 months of oral anticoagulant therapy at their LAT had disappeared. Less clinical evidence, presenting as a small and fixed LAT, less grading of LAT (4.35: 1.49: 12.5), a left atrial spontaneous echo contrast of less than or equal to 4 (OR=5.13: 1.39: 2.43, 12.5), and an INR of more than or equal to 2.5 (19.5: 3.3: 11.13) were significant predictors.