ABSTRACTS - Cardiac Arrhythmias

1211MP-163 Radiation Exposure on Paroxysmal Atrial Fibrillation Catheter Ablation

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Background: The pulmonary veins desconnection (PvD) with radiofrequency (RF) catheter ablation is a new developing technique to treat paroxysmal atrial fibrillation (PAF). It is a long procedure (3 to 4 hours) and a second performance is not uncommon. Objectives: To quantify the radiation exposure for the patient and operator during PAF RF catheter ablation. Methods: Radiation exposure using a pulsed fluoroscopy (7 frames/s) was analyzed in nine consecutive patients submitted to PVD procedure (7 male; mean age 53+/-13y; 3+/-1 PV/patient). Four thermoluminescent dosimeters (TLDs) were used to measure the absorbed radiation in each patient: two on the anterior chest and two on the back (right and left). The operator's exposure was evaluated by two TLDs, one under the plumber shield (abdomen) and one next to the face. Another TLD was left 7 feet away from the X ray source to evaluate the staff radiation exposure. Results: The X ray dose total and the mean dose per procedure for the patients, operator and staff are shown in Table 1. The maximum permissible annual dose exposure according to the Nuclear Energy National Commission is 500mGy. The mean procedure time was 200+/-30min and the mean X ray time was 13+/-2min. Conclusion: The amount of absorbed radiation in PAF RF catheter ablation is quite acceptable to the operator and staff but it is high to the patient. If a second PAF RF ablation procedure is necessary before one year, the patient might be excessively exposed to radiation.

Table 1: X Ray Dose Distribution

<table>
<thead>
<tr>
<th>Patients</th>
<th>Operator</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdomen</td>
<td>Face</td>
<td></td>
</tr>
<tr>
<td>X ray total dose (mGy)</td>
<td>2682</td>
<td>0.4</td>
</tr>
<tr>
<td>Mean X ray dose/procedure (mGy)</td>
<td>298</td>
<td>0.04</td>
</tr>
</tbody>
</table>

ABSTRACTS - Cardiac Arrhythmias

1211MP-163 High Prevalence of ACE DD and Genotype in Patients With Atrial Fibrillation

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Background: The analysis of endothelial NO synthase (eNOS) T-766-C G694T and 4e/4b polymorphisms did not show a significant difference in the genotype distribution and allele frequency between pts and controls but a slight difference in 4a/b and eNOS polymorphism was observed. These data confirm that ACE I/D polymorphism is involved in AF, the possible role of altered NO synthesis requires to be furtherly investigated.

121MP-166 Angiotensin Converting Enzyme Inhibitors Do Not Prevent Supraventricular Tachyarrhythmias: Evidence From the SOLVD Trial

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Background: Recent data has suggested that the incidence of atrial arrhythmias may be reduced by treatment with ACE inhibitors, probably by prevention of atrial electrophysiological remodeling.

Methods: We reviewed data from the Studies of Left Ventricular Dysfunction (SOLVD) Trial, a prospective, randomized, multicenter clinical trial in which patients with left ventricular dysfunction and Class II-IV heart failure were treated either with enalapril or placebo, with the primary endpoint being total mortality. During follow-up, the occurrence of any supraventricular tachycardia (SVT), mainly atrial fibrillation in a heart failure population, was recorded as: (1) a diagnosis causing hospital admission, or (2) SVT requiring treatment or cardioversion. A total of 1,130 patients with specific documentation of the presence or absence of SVT were included in this review.

Results: In these 1,130 patients, 2% (10/243) of the enalapril treatment group versus 3.8% (19/506) of the placebo group had SVT as the diagnosis for admission (p=0.50). As a secondary endpoint, the incidence of SVT was 4.7% (29/624) for the enalapril group compared with 3.7% (18/506) for the placebo group (p=0.3). Combining the above results, the total incidence of SVT was 6.9% for the enalapril group versus 6.7% for the placebo group (p=1.0).

Conclusion: In a large population of patients with left ventricular dysfunction and congestive heart failure, treatment with enalapril did not significantly affect the incidence of SVT compared to placebo.