Uterine Clinical Characteristics Among Black and White Patients Referred for Treatment of Pulmonary Hypertension

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Background: A recent review of death certificates from the Center for Disease Control and Prevention revealed that black men and women have a substantially higher mortality from primary pulmonary hypertension than whites. Furthermore, this discrepancy has widened over the past two decades and the reason for this remains unknown.

Methods: We reviewed the baseline clinical information, echocardiograms, and hemodynamic characteristics of 91 patients (69 whites and 22 blacks) with pulmonary hypertension referred to a tertiary medical center for vasodilator testing prior to initiation of definitive therapy. All patients had pulmonary vasculard disease on palpation with 40 pmol of inhaled nitric oxide (INO).

Results: Though blacks tended to be younger (48 +/- 12 vs. 56 +/- 14 years, p=0.003), black and white patients were similar in gender (18% vs. 22% female), underlying diagnosis (59% vs. 58% carrying a diagnosis of primary pulmonary hypertension), and baseline NYHA function class (2.8 vs. 2.9). Echocardiograms revealed larger right ventricles (p=0.001) with more extensive hypocoaptality (p=0.006) and greater interventricular septum and posterior wall enlargement (p=0.004) in black patients. Hemodynamic parameters were notable for higher mean right atrial pressures (14 +/- 7 vs. 10 +/- 6 mm Hg, p=0.046) in black patients despite similar mean pulmonary pressures (51 +/- 12 vs. 46 +/- 15 mm Hg, p=0.151). The mean % reduction in pulmonary pressures with INO was greater in white patients but did not reach statistical significance (17% vs. 12%, p=0.129).

Conclusion: In a group of pulmonary hypertension patients referred for vasodilator testing, black patients appeared to have more advanced pulmonary hypertension with greater evidence of end organ damage by echocardiography. This suggests either more rapid progression of disease or delayed diagnosis and/or referral in blacks with pulmonary hypertension and may explain the discrepancy in mortality seen between blacks and whites with this disorder.

1008-126 QRS Duration Predicts Survival In Patients With Pulmonary Arterial Hypertension

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Pulmonary Arterial Hypertension is a progressive disease associated with right ventricular (RV) remodeling, systolic dysfunction and death. Both incomplete and complete right bundle branch block are frequently observed on surface electrocardiograms (EKG) in patient with PAH. QRS and QTc duration have been associated with survival in PAH patients, QRS and QTc duration are directly related to mortality in patients (pts) with cardiovascular disease. Black patients appeared to have more advanced pulmonary hypertension with greater evidence of end organ damage by echocardiography. In this study, we examined QRS and QTc duration in a cohort of PAH patients to determine if these parameters predict survival.

Methods: A total of 77 patients with mobile RAT between January 1, 1984 and July 15, 2002 were studied. Freely mobile RAT, characterized by a typical "popcorn" or serpiginous appearance, was defined as type I if a major portion of the mass moved freely within the right atrium and crossed the tricuspid valve. Partially mobile RAT, with a broad attachment to an intracardiac structure or foreign body, was defined as type II. Clinical history and diagnostic studies were reviewed to document treatment choice and outcome. Mortality is reported as within 14 days inhospital from all causes.

Results: Type I RAT was identified in 16 males and 16 females with a mean age of 60 +/- 17.1 years and type II RAT was identified in 24 males and 22 females with a mean age of 51 +/- 25.1 years. Mortality in patients with type I RAT was higher than those with type II RAT, (32.3% versus 8.7%, p=0.009). Table 1

<table>
<thead>
<tr>
<th>Type</th>
<th>No. Mortality</th>
<th>No. Mortality</th>
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<tbody>
<tr>
<td>Type I</td>
<td>20 (70%)</td>
<td>7 (25%)</td>
<td>2 (0%)</td>
<td>1 (100%)</td>
</tr>
<tr>
<td>Type II</td>
<td>13 (51.7%)</td>
<td>4 (16%)</td>
<td>0 (0%)</td>
<td>1 (100%)</td>
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Conclusion: 1) Mortality is significantly higher in patients with type I RAT; 2) Patients with type I RAT should be managed aggressively either with thrombolytics or surgical intervention; whereas patients with type II RAT may initially be managed with standard anticoagulation followed by thrombolytics or surgical intervention for persistent thrombus or unstable hemodynamics.

1008-129 High incidence of Left Atrial Appendage Thrombus In End-Stage Renal Disease Patients Referred to Hemodialysis

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Background: Intracardiac sources of cerebrovascular ischemic events reportedly account for 15 to 20% of strokes in the general population. However, no study has determined the incidence of intracardiac thrombus formation in hemodialysis patients. In this study, we determined the incidence of intracardiac thrombus formation in maintenance hemodialysis patients.

Methods: Transthoracic echocardiography was performed in 215 patients with end-stage renal disease undergoing maintenance hemodialysis (126 males, 90 females; mean age: 60 +/- 9 years). Patients with a current or previous history of anticoagulation or with cardiac disease were excluded from this study.

Results: Thrombus was found in the left atrial appendage in 71/215 patients (33%). Based on multivariate logistic regression analysis, the risk of the presence of thrombus was increased in patients on chronic antiplatelet therapy (odds ratio: 4.268) and in those with diabetes mellitus and a low hematocrit (1.7; odds ratio: 1.713). Other detail: Patients included gender, age, duration of hemodialysis, blood pressure, left ventricular dimension, smoking habit, or type of anticoagulation drug used during dialy-