to those in the CG (p < 0.05) (mean score ± SD in number of visits of participants in the IG and CG groups were 9.32 (3.25) and 15.79 (4.82), respectively in month 27).

**CONCLUSIONS:** In summary, our findings indicate that our intervention reduces the number of consultations, which is a direct measure of health economic costs.

**F-30 Free Communication/Poster - Medical Issues**

**JUNE 1, 2012 1:00 PM - 6:00 PM**

**ROOM: Exhibit Hall**

**3215 Board #180 June 1, 2012 3:30 PM - 5:00 PM**

**Intensive Lifestyle Modifications Reduce Lp-PLA2 Mass In Patients With HIV Lipodystrophy**

Kevin S. Chapman1, Joshua S. Wooten1, Preethi Namb3, Baiba K. Gillard1, Vijay Namb1, Henry J. Pownall1, Lynne W. Scott2, Christo M. Ballantyne3, Ivonne Coraza3, Ashok Balasubramanyan4. 1Southern Illinois University Edwardsville, Edwardsville, IL. 2Baylor College of Medicine, Houston, TX.

*No relationships reported*

Patients with HIV-associated lipodystrophy have exhibited Lp-PLA2 levels above what is observed in patients with coronary heart disease (CHD), which may indicate accelerated development of CHD.

**PURPOSE:** To assess if an intensive and exercise (D/E) program independently and combined with fenofibrate and niacin provided added benefits to usual medical care at reducing circulating Lp-PLA2, mass and CCL5/RANTES in patients with HIV lipodystemia.

**METHODS:** Participants (n=107) were randomized to five study groups: 1) Usual care; 2) D/E; 3) D/E with fenofibrate (160 mg/d); 4) D/E with niacin (2 g/d); and 5) D/E with fenofibrate and niacin for 24 weeks. General linear models (SPSS 18.0) was used to compare the five randomized groups with respect to Lp-PLA2, mass and CCL5/RANTES while controlling for age, baseline BMI, baseline C4+ T-cell count, baseline viral load, duration of HIV, and duration of antiretroviral drug therapy, as well as the baseline outcome value. Statistical significance was set at P<0.05.

**RESULTS:** Following the 24-week intervention, Lp-PLA2 concentration (Table 1) was significantly lower in patients who participated in D/E only, D/E plus fenofibrate, and D/E plus niacin than patients receiving usual medical care. Interestingly, there was no significant difference in Lp-PLA2 mass between patients who received D/E only, D/E plus fenofibrate and D/E plus niacin. No significant differences were observed between groups for CCL5/RANTES concentrations following the 24-week intervention.

**CONCLUSIONS:** This study is first to demonstrate that when compared to standard medical care, plasma Lp-PLA2 mass can be reduced by an intensive D/E program in patients with HIV lipodystemia.

Supported by NIH Grant R01 HL73696 (A.B.).

Table 1: Lp-PLA2 and RANTES levels following the 24-week intervention.

<table>
<thead>
<tr>
<th>Group</th>
<th>Lp-PLA2 (ng/mL)</th>
<th>Lp-PLA2 (ng/mL)</th>
<th>Post-treatment</th>
<th>RANTES (pg/mL)</th>
<th>Post-treatment</th>
<th>RANTES (pg/mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14.4 ± 5.9</td>
<td>14.0 ± 4.9</td>
<td>12.6 ± 3.5</td>
<td>10.8 ± 4.6</td>
<td>9.2 ± 4.6</td>
<td>8.4 ± 4.6</td>
</tr>
<tr>
<td>2</td>
<td>11.1 ± 3.9</td>
<td>10.7 ± 2.3</td>
<td>10.0 ± 2.4</td>
<td>8.6 ± 2.4</td>
<td>7.2 ± 2.4</td>
<td>6.4 ± 2.4</td>
</tr>
<tr>
<td>3</td>
<td>9.0 ± 1.9</td>
<td>8.9 ± 1.1</td>
<td>7.6 ± 1.1</td>
<td>6.8 ± 1.1</td>
<td>6.2 ± 1.1</td>
<td>5.8 ± 1.1</td>
</tr>
</tbody>
</table>

**F-302 Free Communication/Poster - Medical Issues**

**JUNE 1, 2012 1:00 PM - 6:00 PM**

**ROOM: Exhibit Hall**

**3217 Board #182 June 1, 2012 3:30 PM - 5:00 PM**

**Three-Dimensional Global Area Tracking is a Valuable Quantitative Parameter for Left Ventricular Function in Athletes**

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*No relationships reported*

The one- and two-dimensional echocardiography offers established methods for quantitative evaluation of left ventricle systolic function such as the measurements of the ejection fraction by Teicholz or Simpson. In recently developed three-dimensional (3D) speckle tracking, the result of area tracking is used as a new method with global strain measurement to quantify global and regional left ventricular function. Global area tracking can be calculated by the time-to-peak area tracking related to the heart cycle and may offer an alternative to current echocardiographic standards for quantitative assessment of global left ventricular function in athletes.

**PURPOSE:** The aim of this study is to determine the correlation between ejection fraction and global area tracking in cardiovascular patients and athletes.

**METHODS:** Standard 3D speckle tracking echocardiography was performed in 21 healthy athletes (age 23 ± 4.8 yr, height 186 ± 9.4 cm, weight 84 ± 10.2 kg) and 9 cardiovascular patients. Ejection fraction and area tracking values were calculated by 3D wall motion tracking software. Echocardiography measurements of 3 consecutive beats were taken from each subject during the tests. Mean values of 3 measurements from both ejection fraction and area tracking were calculated for Spearman’s rho correlation tests for nonparametric statistical comparisons.

**RESULTS:** Mean values for ejection fraction were 55 ± 5% in athletes and 55 ± 8% in patients. Mean values for global area tracking were 39 ± 14% in athletes and 38 ± 6% in patients. All three groups of the subjects (21 athletes, 9 patients and combined group of 30 subjects) showed significant negative correlation between ejection fraction and area tracking. Correlations were found for athletes rho=−.76, for cardiovascular patients rho=−.929 and for combined group rho=−.855. All correlations were significant (p < 0.01) (2-tailed).

**CONCLUSION:** Significant negative correlations between ejection fraction and area tracking were found regardless of different physical fitness and cardiovascular conditions in athletes and cardiovascular patients.