5 EFFECT OF EXERCISE ON HEMOSTATIC MARKERS IN PATIENTS WITH ATRIAL FIBRILLATION (NON-MRS MEMBER)

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Although chronic atrial fibrillation (AF) is known to confer a hypercoagulable state, it is uncertain whether this is further altered by exercise. Methods. We measured levels of von Willebrand factor (vWF, IU/dL, a marker of endothelial dysfunction), plasminogen activator inhibitor (PAI, mg/ml, fibrinolysis), soluble P-selectin (sPsel, mg/ml, platelet activation) (ELISA) and fibrinogen (fib, g/L, Clauss method) in 17 AF patients not on any antithrombotic therapy (14 men; mean age 65±11 years). All underwent treadmill exercise test (ETT) (standard Bruce protocol) achieving a mean workload of 6.2±1.7 METS with an exercise time of 4.9±2.0 mins. Bloods were taken at baseline, immediately and 20 mins post-ETT. Baseline levels were compared to matched healthy controls in sinus rhythm

Control Pre-ETT Imm After p
vWF 98±31 130±36* 135±42 136±43 0.236
Fib 3.2±1 3.1±0.8 3.4±1 3.4±1 0.036
PAI 4.9(3.9-5.8) 4.8(0.7-5.8) 4.2(0.3-5.8) 0.025
sPsel 96±23 84±23 82±24 85±23 0.140

*p<0.012 (paired t-test, controls vs pre-ETT)

Repeated measures ANOVA for pre-, imm and 20 mins post-ETT. Conclusions. AF patients have higher vWF and PAI increased after ETT. Exercise increases the clotting state and reduces inhibition of fibrinolysis in AF patients.

6 DOES RETURN OF LEFT ATRIAL FUNCTION AFTER CARDIOVERSION IN ATRIAL FIBRILLATION (AF) IMPROVE HEMOSTATIC MARKERS? (NON-MRS MEMBER)

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Although AF is known to confer a prothrombotic state, it is uncertain whether this is altered by DC cardioversion (DC CV) with return of left atrial function (A wave on doppler study). Methods. We measured levels of von Willebrand factor (vWF, IU/dL, a marker of endothelial dysfunction) (ELISA) and fibrinogen (fib, g/L, Clauss method) in 15 AF patients taking warfarin (INR 2±0) (14 men; mean age 64±11 years). All had echocardiography and bloods taken prior to, 3 and 12 weeks after the successful DC CV. Baseline levels were compared to matched healthy controls in sinus rhythm

Control Pre-CV 3 weeks 3 months post-CV post-CV
vWF 101±30 106±26 104±33 115±25
Fib 2.5±0.6 2.7±0.8 2.6±0.7 2.5±0.8

*p<0.05 for both paired t-test (controls vs pre-CV); and repeated measures ANOVA (pre-, 3 and 12 weeks post-CV).

Δ 0-3 Δ 0-12 week post-CV week post-CV post-CV
vWF -9(15) -12(27 to 20) 11.0 wave (0.35 -0.54 0.69 1.58)
Fib 42(52) -14(-66 to 68) 105 A difference between week 0 and 3, 0 and 12. Spearman correlation pns (A wave in cm/s)

Conclusions. Despite a return of atrial contractility (A wave) after DC cardioversion, there is no significant change in the levels of vWF and fibrinogen. There was no correlation between A wave and the 2 markers.

7 A COMPARISON OF CARDIOVASCULAR RISK FACTORS AMONGST INDO-ASIAN PATIENTS ADMITTED WITH ACUTE MYOCARDIAL INFARCTION IN KUALA LUMPUR, MALAYSIA AND BIRMINGHAM, ENGLAND

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Indo-Asians in Britain are at increased risk of coronary artery disease (CAD), and this may be a reflection of their cardiovascular risk factors. We hypothesised that Indo-Asians in Malaysia and Britain may exhibit a similar cardiovascular risk profile. To investigate this further we studied 70 consecutive Indo-Asian patients who were admitted with myocardial infarction over a similar 8 week period to teaching hospitals in Kuala Lumpur, Malaysia (n=42; 15 males; mean age 60.6 years, standard deviation 11.8); and in Birmingham, England (n=28; 20 males; mean age 60.8 years, sd 12.9). Both groups were compared to 20 Caucasian patients (13 males; mean age 62.7 years, sd 9.4) admitted with myocardial infarction from Birmingham. Our results are as follows:

<table>
<thead>
<tr>
<th>%</th>
<th>Indo-Asians</th>
<th>Birmingham</th>
<th>Caucasians (Birmingham)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>40.5</td>
<td>46.4</td>
<td>10.0</td>
<td>0.0252</td>
</tr>
<tr>
<td>Hypcholesterolaemia</td>
<td>9.5</td>
<td>17.9</td>
<td>45.0</td>
<td>0.0113</td>
</tr>
<tr>
<td>FVD</td>
<td>2.4</td>
<td>3.6</td>
<td>30.0</td>
<td>0.0008</td>
</tr>
<tr>
<td>Regular Alcohol</td>
<td>9.5</td>
<td>21.4</td>
<td>70.0</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Smoking</td>
<td>31.0</td>
<td>21.4</td>
<td>50.0</td>
<td>0.1098</td>
</tr>
<tr>
<td>Hypertension</td>
<td>59.5</td>
<td>35.7</td>
<td>35.0</td>
<td>0.0731</td>
</tr>
<tr>
<td>mean (sd) BMI kg/m²</td>
<td>24.4(4.6)</td>
<td>26.9(5.0)</td>
<td>26.6(4.9)</td>
<td>0.0662</td>
</tr>
<tr>
<td>systolic BP mmHg</td>
<td>142.5(36.1)</td>
<td>136.0(26.0)</td>
<td>141.3(17.2)</td>
<td>0.5849</td>
</tr>
<tr>
<td>diastolic BP mmHg</td>
<td>86.2(24.3)</td>
<td>77.1(17.8)</td>
<td>82.3(12.0)</td>
<td>0.1496</td>
</tr>
</tbody>
</table>

[BP = blood pressure; FVD = family history; FVD = peripheral vascular disease; BMI = body mass index; Data analysed by one-way ANOVA with Tukey's posthoc analysis]

This survey of a contemporaneous series of consecutive admissions with acute myocardial infarction to Kuala Lumpur, Malaysia and to Birmingham, England has demonstrated a high prevalence of diabetes amongst Indo-Asians in both countries, compared to Caucasians. By contrast, Caucasians had a high prevalence of family history of CAD, hypercholesterolaemia, peripheral vascular disease and regular alcohol consumption. There was no significant difference in mean age, body mass index or blood pressures. The high prevalence of diabetes amongst both Indo-Asian groups is likely to contribute to their high incidence of CAD.

8 PHYSICAL ACTIVITY SCORE DIFFERENCES AMONGST INDO-ASIAN PATIENTS ADMITTED WITH ACUTE MYOCARDIAL INFARCTION IN KUALA LUMPUR, MALAYSIA AND BIRMINGHAM, ENGLAND

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Indo-Asians in Britain are at increased risk of coronary artery disease (CAD), and this may be a reflection of a sedentary lifestyle and abnormal physical activity. We hypothesised that Indo-Asians in Malaysia may exhibit similar physical activity profiles compared to Indo-Asians in Britain. To investigate this further we studied 70 consecutive Indo-Asian patients who were admitted with myocardial infarction over a similar 8 week period to teaching hospitals in Kuala Lumpur, Malaysia (n=42; 15 males; mean age 60.6 years, standard deviation 11.8); and in Birmingham, England (n=28; 20 males; mean age 60.8 years, sd 12.9) using the validated Baecke questionnaire to quantify work, sport and leisure activity, which is then summed as a total physical activity score. Both groups were compared to 20 Caucasian patients (13 males; mean age 62.7 years, sd 9.4) admitted with...