**ABSTRACTS - Featured Poster 3A**

**Noon**

**1001-9**  
**Effect of Free Fatty Acid Inhibition on Left Ventricular Function in Diabetic Patients With Coronary Artery Disease**  
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In diabetic patients with coronary artery disease free fatty acid blockade with trimetazidine improves myocardial glucose utilization. Aim of the present study was to evaluate whether the metabolic effect of Trimetazidine on left ventricular function in diabetic patients with coronary artery disease. We evaluated the effect of chronic administration of Trimetazidine on left ventricular dimensions and systolic function in 32 patients y (24 males and 8 females, mean (SE) age = 67±6 years) with NIDDM and ischemic cardiomyopathy.

Patients were randomized to receive on top of standard therapy either Trimetazidine (20 mg, tids) or Placebo (tids) and were evaluated at baseline and after 6 months. Demographic data were comparable between the two groups with respect to sex, age, distribution of CAD, and glicated haemoglobin levels. In the Placebo group, baseline LVEF increased by 2.1±0.7 mm, while in the Trimetazidine group, LVEF remained unchanged in the Placebo group (–2.4±1.1% (NS), p<0.01 between groups. In conclusion, in diabetic patients with ischemic heart disease TMZ added to standard medical therapy has beneficial effect on LV volumes and on LVEF compared to placebo. This effect may be related to the effect of TMZ upon cardiac glucose utilization.

**1001-10**  
**Testosterone Replacement Confers a Favourable Cytokine Profile in Men With Low Serum Testosterone and Coronary Disease**  
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Background Men with atherosclerotic coronary disease have lower serum testosterone (T) levels than men with normal angiograms. T has immune-modulating properties and replacement therapy inhibits atherogenesis in castrated, male, cholesterol-fed animals. In-vitro evidence suggests that T suppresses pro-inflammatory cytokines such as tumour necrosis factor (TNF-α) and potentiates the expression of anti-inflammatory cytokines such as interleukin (IL)-10, these effects may mediate the atheroprotective effect observed in animals. The effect of T replacement therapy on inflammatory cytokines in men with coronary disease is explored for the first time in this study.

Methods This was a randomised placebo controlled crossover study of 1 month T replacement (Sustanon 100) versus placebo in 20 men (age 61 ±9 years) with symptomatic anatomic defect (total T 6.7 ± 2.3 nmol/L (normal range =8.5±0.5 mol/L) and angio graphic proven coronary disease (>20% stenosis of ≥ 1 epicardial coronary artery). Serum cytokines (TNFα, IL-1β and IL-10), cholesterol profile (total cholesterol, low density Lipoprotein, high density lipoprotein, triglycerides) and hormones (total T and bioavailable T) were measured at baseline and after treatment from the T and placebo phase. Results are displayed as mean ±SD. Delta analysis was used to test significance.

Results Compared to placebo, T reduced both TNFα (-41 ± 9.1 v 1.5 ± 5.9 pmol/L, p=0.007) and IL-1β (-10.7 ± 0.3 v 0.2 ± 0.6 pmol/L, p=0.04). An increase in IL-10 approached significance (0.2 ± 2 v 0.87 ± 3.3 pmol/L, p=0.08). There was a trend to reduction in total cholesterol with T (-0.26 ± 0.5 v -0.005 ± 0.5mmol/L, p=0.1).

Conclusions Testosterone replacement in this cohort shifts the cytokine balance to a state of reduced inflammation, this may have positive effects on atherosclerotic plaque biology. Since the prevalence of hyperglycaemia in men with coronary disease is high (23%) and the risk of vascular complications and mortality is in part determined by inflammation. Testosterone may offer prognostic benefit to a large proportion of men with overt coronary disease.

**1001-11**  
**Lower Doses of Hormone Replacement Therapy Did Not Increase hsC-Reactive Protein or F1+2 Levels but Improved Flow-Mediated Dilation in Postmenopausal Women: A Randomized, Double-Blind, Crossover Study**  
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**Objective:** The effects of hormone replacement therapy (HRT) can affect many aspects relevant to cardiovascular disease including vasomotor function, inflammation, and hemostasis. Recent studies have demonstrated that current doses of HRT exert a mixture of both protective and adverse effects. In the current study, we compared the effects of lower doses of HRT (L-HRT) and conventional doses of HRT (C-HRT) on a variety of relevant cardiovascular parameters.

**Methods and Results:** This randomized, double-blind, crossover study included fifty-seven women who received micronized progesterone 100 mg with either conjugated estrogens (0.625 mg) (C-HRT) or 0.3 mg (L-HRT) daily for 2 months. L-HRT showed comparable effects to C-HRT on HDL cholesterol and triglyceride levels, but not on LDL cholesterol levels. C-HRT and L-HRT significantly improved the percent flow-mediated dilator response to hyperemia from baseline values (p<0.001) by a similar degree (p<0.179), C-HRT significantly increased high sensitivity CRP (hsCRP) levels from baseline values (p<0.001). However, L-HRT did not significantly change hsCRP (p=0.874). C-HRT increased L-HRT significantly decreased III from baseline values (p=0.02 and p=0.042, respectively). C-HRT significantly increased prothrombin fragment 1+2 (F1+2) from baseline values (p<0.001), however, L-HRT did not significantly change F1+2 (p=0.558). Of interest, the effects of C-HRT and L-HRT on hsCRP, antithrombin III, and PAI-1 were significant, but did not differ between C-HRT and L-HRT. Compared to baseline, LVEF increased by 5.4±0.5% (p<0.05) in the TMZ group while in the Trimetazidine group.

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