Abstract: **P829**

A randomized controlled trial of aspirin compared to clopidogrel in patients with heart failure

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Background: Previous studies suggest that relatively high doses of aspirin (>150mg/day) may impair renal function, increase blood pressure (BP) and plasma concentrations of amino-terminal pro-brain natriuretic peptide (NT-proBNP) and be associated with worse outcomes in patients with heart failure.

Methods: Patients with a clinical diagnosis of heart failure, in sinus rhythm with an NT-proBNP >400ng/L receiving diuretic therapy were randomised, open-label, to either aspirin (75mg/day) or clopidogrel (75mg/day). Patients were assessed at baseline and at 6 months.

Results: The median (IQR) age of the 87 patients randomised was 75 (82,69) years, 22 were women, 15 were in New York Heart Association (NYHA) class III or IV and 67 had been treated with aspirin prior to study. By 6 months, of 38 patients assigned to aspirin, five had died and six withdrew from treatment and of 49 assigned to clopidogrel, three had died and three withdrew. At 6 months, serum creatinine increased more in those assigned to aspirin rather than clopidogrel (+11+17 v 0+24μmol/L; p=0.04) with a similar trend for serum urea (0.7+2.2 v 0.4+2.5mmol/L; p=0.60). Systolic BP declined to a similar extent in patients assigned to aspirin and clopidogrel (-7+27 v -11+27mHg respectively; p=0.61) but diastolic BP declined more with clopidogrel (+1+14 v -6+10mmHg; p=0.023). The median change in NT proBNP was similar on clopidogrel and aspirin (Clopidogrel -78 (-452, 201)ng/L v Aspirin -88(-341, 167)ng/L; p=0.91) and NYHA class was similar in each group.

Conclusions: These data confirm other reports suggesting that aspirin use is associated with more impairment of renal function and higher BP in patients with heart failure. These effects may be mediated by inhibition of vascular prostaglandins. However, it is not clear if this leads to greater cardiac stress (higher NT-proBNP) or worse clinical outcome.