

## STUDY REPORT SUMMARY

### ASTRAZENECA PHARMACEUTICALS

**FINISHED PRODUCT:** Crestor ®

**ACTIVE INGREDIENT:** Rosuvastatin calcium

<b>Study No:</b> D3562C00098 substudy
---------------------------------------

<b>Effects of rosuvastatin on coronary flow reserve and metabolic mismatch in patients with heart failure. Substudy of the Corona study.</b>
--

**Developmental phase:** Phase III

**Study Completion Date:** 08-01-2008 (substudy DBL)

**Date of Report:** Manuscript to be submitted

**OBJECTIVES:** In patients with chronic heart failure, statin treatment might improve myocardial perfusion, but could also have detrimental effects on myocardial metabolism. A predefined sub-study of the Controlled Rosuvastatin Multinational Trial in Heart Failure (CORONA) trial sought to determine the effects of statin treatment on myocardial blood flow reserve and cardiac metabolism.

**METHODS:** 16 patients with chronic heart failure were randomized to 10 mg rosuvastatin daily (n=8) or placebo treatment (n=8). After 6 months of treatment <sup>13</sup>N-ammonia at rest and after dipyridamole stress and 18-fluorodeoxyglucose positron emission tomography (PET) was performed at baseline and after 6 months.

**RESULTS:** The mean age was 73±8 years, mean left ventricular ejection fraction of 0.27±0.09, and all patients had NYHA II or III (37 or 63%) heart failure symptoms. Rosuvastatin treatment significantly lowered total (-36%, P<0.01) and low-density lipoprotein (-47%, P<0.001) cholesterol as well as C-reactive protein levels (-36%, P<0.05). Myocardial perfusion changed from 1.64±0.90 to 1.30±0.37 in placebo treated and from 1.51±0.18 to 1.55±0.34 in rosuvastatin treated patients (P=NS). Metabolic mismatch changed from 4.25±2.37 to 4.38±3.81 in placebo and from 5.13±2.75 to 3.50±2.73 in rosuvastatin treated patients (P=NS)