Objective To investigate the clinical significance in progress of coronary heart disease (CHD) of serum oxidative and insulin resistance (IR) in patients with CHD.

Methods One hundred and thirty patients with CHD were divided into three groups: AMI group, UAP group and SAP group; 68 subjects with control group. Plasma 8-iso-PGF$_{2\alpha}$ was determined by enzyme-linked immunosorbent assay (ELISA) and serum insulin by radioimmunoassay (RIA). The lesion severity of coronary artery was assessed with Gensini coronary scoring system and the correlation was analysed between plasma 8-iso-PGF$_{2\alpha}$ and HOMA-IR.

Results The levels of plasma 8-iso-PGF$_{2\alpha}$ and HOMA-IR in patients with CHD were significantly higher than those in the control group (p<0.05), and a significant positive correlation was found between plasma 8-iso-PGF$_{2\alpha}$, HOMA-IR and Gensini coronary scoring system.

Conclusions Interaction between oxidative stress and insulin resistance may be involved in the development of CHD. It may play a particularly important role in patients with acute coronary artery syndrome (ACS).