Objective The aim of this study was to investigate the efficacy of intervention therapy in patients with acute myocardial infarction (AMI) complicating complete atrioventricular block (CAVB).

Methods Data from 80 consecutive patients with CAVB complicating AMI treated in coronary care unit (CCU) from January 2007 to September 2010 were analysed and compared with data from 80 AMI patients without CAVB, each of whom was admitted just before or after the admission of a corresponding CAVB patient. CAVB patients were divided into two groups according to whether or not receiving reperfusion therapy within 12 h of symptoms onset.

Results Compared with patients without CAVB, patients with CAVB were older (p<0.01) and a greater proportion had inferior or right ventricle infarction (p<0.01). A statistically significant increase in the incidence of in-hospital mortality, ventricular fibrillation, carcinogenic shock and Killip class χ was observed among patients with CAVB, compared with that observed among patients without CAVB. Only one of 50 patients with reperfusion therapy was dead in hospital, compared with five of 30 patients without reperfusion (p<0.05). In reperfusion therapy group, only one case was implanted permanent pacemaker, 48 cases complete restoration of sinus rhythm and in without reperfusion group, five cases were implanted permanent pacemaker, 24 cases complete restoration of sinus rhythm.

Conclusions Patients with CAVB complicating AMI have a significant worse prognosis than those without CAVB. Coronary reperfusion therapy may contribute to hospital survival of these patients. Related artery occlusion intervention open, timely and effective blood flow restored, improves atrioventricular node function and normal AV conduction and avoid permanent pacemaker implantation, this difference in prognosis is whether of universal significance, requires further study.