Methods 357 cases of acute myocardial infarction patients (32 cases of high-elderly group AMI patients and 154 cases of elder group AMI patients and 171 cases of non-elderly AMI group patients), which were admitted to the first affiliated hospital of China Medical University between Feb. 2011 and Aug. 2011, were underwent VLP examination.

Results The VLP positive rate of high-elderly AMI group was 71.9%, while that of elder AMI group was 53.2%, and that of the non-elder AMI group was 43.3%. The differences of the three groups have statistics meaning ($X^2=9.87, p<0.01$) The occurrence rate of malignant ventricular arrhythmia in VLP positive patients was 15.1%, while in VLP negative patients was 6.2% and the differences have statistics meaning ($X^2=7.44, p<0.01$).

Conclusions The VLP positive rate of high-elderly AMI group is the highest than that of the other groups. In the meanwhile the VLP positive rate of elder AMI group is higher than that of the non-elder AMI group. The occurrence rate of malignant ventricular arrhythmia in VLP positive patients is higher than that in VLP negative patients. VLP plays an important role in predicting the malignant ventricular arrhythmia attack of the high-elderly AMI patients.