

11. Arrhythmic Risks Post Myocardial Infarction in Modern Era of Early Revascularization in Asian Population

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Body

Background: Current data on arrhythmic risks after acute myocardial infarction in the modern era of early revascularization in the Asian population are limited.

Objective: The purpose of this study was to investigate the incidence of arrhythmic risks after acute ST elevation myocardial infarction in a contemporary cohort of Chinese patients in the era of early revascularization.

Methods: A cohort of 394 patients admitted with ST elevation myocardial infarction who under emergency revascularization, mean age 59.76 ± 12.84 years old, male 88%, diabetes mellitus 40%, hypertension 72%, hyperlipidaemia 78%, previous ischaemic heart disease or stroke 10%, smoker 65%, mean follow up of 577 ± 118 days. Pain to needle time (onset of chest pain to primary angioplasty) 4.88 ± 4.60 hours. Mean left ventricular ejection fraction (LVEF) $41.98 \pm 10.79\%$. 130 patients had LVEF $\leq 35\%$, mean LVEF $29.74 \pm 5.95\%$ improved to $39.85 \pm 10.13\%$ ($p < 0.001$) after 6 months.

Results: There were 12 deaths, 8 non arrhythmic cause, 1 cardiac arrest due to ventricular fibrillation and 3 deaths of unknown cause. The risk of arrhythmic death and death of unknown cause is 0.64% per year. The risk of atrial fibrillation is 2.4% per year. 14 patients developed atrial fibrillation, 10 paroxysmal AF and 4 persistent AF. 7 occurred at day 1, 5 at day 2 and 2 at day 3 post MI.

Conclusion: The arrhythmic risks after acute myocardial infarction in the modern era of early revascularization in the Asian population is lower than previously reported may be due to prompt revascularization and reverse cardiac remodeling from modern day secondary prevention medications. AF is the commonest arrhythmia post MI and 86% occurred within 48 hours post MI may be due to ischaemia and inflammation.

Clinical Implications: Reduction in arrhythmic risks following acute ST elevation MI due to prompt revascularization and reverse cardiac remodeling from modern day secondary prevention medications. AF is the commonest arrhythmia post MI and 86% occurred within 48 hours post MI may be due to ischaemia and inflammation.