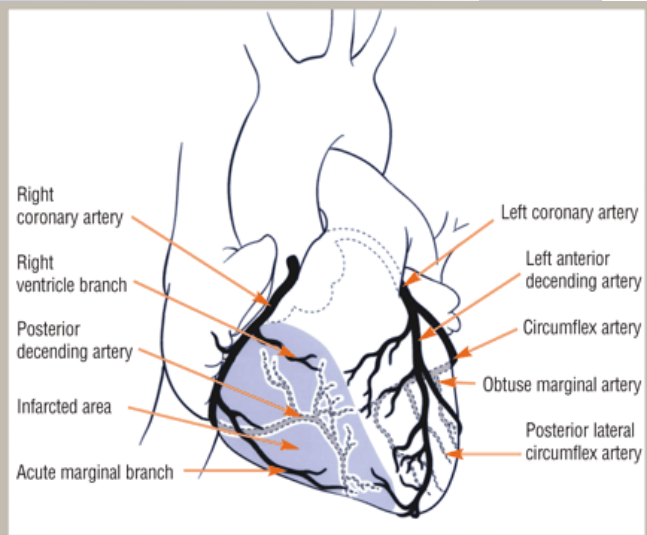


Right Ventricular Infarction is an Independent Predictor of Short Term Prognosis in Acute Inferior Myocardial Infarction



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Introduction

- Acute inferior myocardial infarction is generally considered to have more favorable prognosis than anterior myocardial infarction. But, when it is complicated with right ventricular infarction, resulting in hemodynamic instability and increased mortality and hence, it is considered as high risk MI. We hypothesized that RVI, as diagnosed by ST segment elevation in the right precordial lead V_4R , may affect the prognosis of patients with inferior Myocardial Infarctions.



General objective

- To determine the in-hospital mortality and morbidity of inferior myocardial infarction patients with or without right ventricular infarction.



Specific objectives

- To observe the frequency of RV infarction among the inferior MI patients.
- To observe the occurrence of complications among the inferior MI patients.
- To assess the short-term mortality of these patients.

Methodology

- **Study type:** Descriptive, cross-sectional study.
- **Study time:** 2 years (July 2007 to June 2009).
- **Study place:**
 - Department of Medicine, Rajshahi Medical College Hospital.
 - Department of Cardiology, Rajshahi Medical College Hospital.
- **Patients:** Patients presented with acute inferior myocardial infarction.
- **Sample size:** Two hundred forty five (245) samples were calculated One hundred twenty six (126) patients were available during the study period and all were included purposively. Of these 26 patients were excluded according to exclusion criteria and remaining 100 patients were studied.
- **Sampling procedure:** Purposive sampling method

Results

- Frequency of right ventricular infarction among the inferior myocardial infarction patients was 31%.
- Major complications as hypotension and cardiogenic shock occurred in 96.7% and 64.5% patients respectively and in hospital mortality was 41%.

Results

- Major complications as hypotension and cardiogenic shock occurred in 10.1% and 2.8% patients respectively and in hospital mortality were 2.9% among the patients of inferior myocardial infarction without RV infarction.
- Patients with RV infarction had a 14 times higher risk of death and a 22 times higher risk of major complications during hospitalization.

Results

- Multiple logistic regression analysis showed right ventricular infarction to be independent of and superior to all other clinical variables available on admission for the prediction of in-hospital mortality (relative risk, 88.37; 95 percent confidence interval, 7.33 to 1064.8; $p=0.00$) and major complications as hypotension (relative risk, 394.22; 95 percent confidence interval, 32.04 to 4849.07; $p=0.00$) and cardiogenic shock (relative risk, 272.36; 95 percent confidence interval, 16.38 to 4526.35; $p =0.00$).

Fig 1: Prevalence of complications among the patients

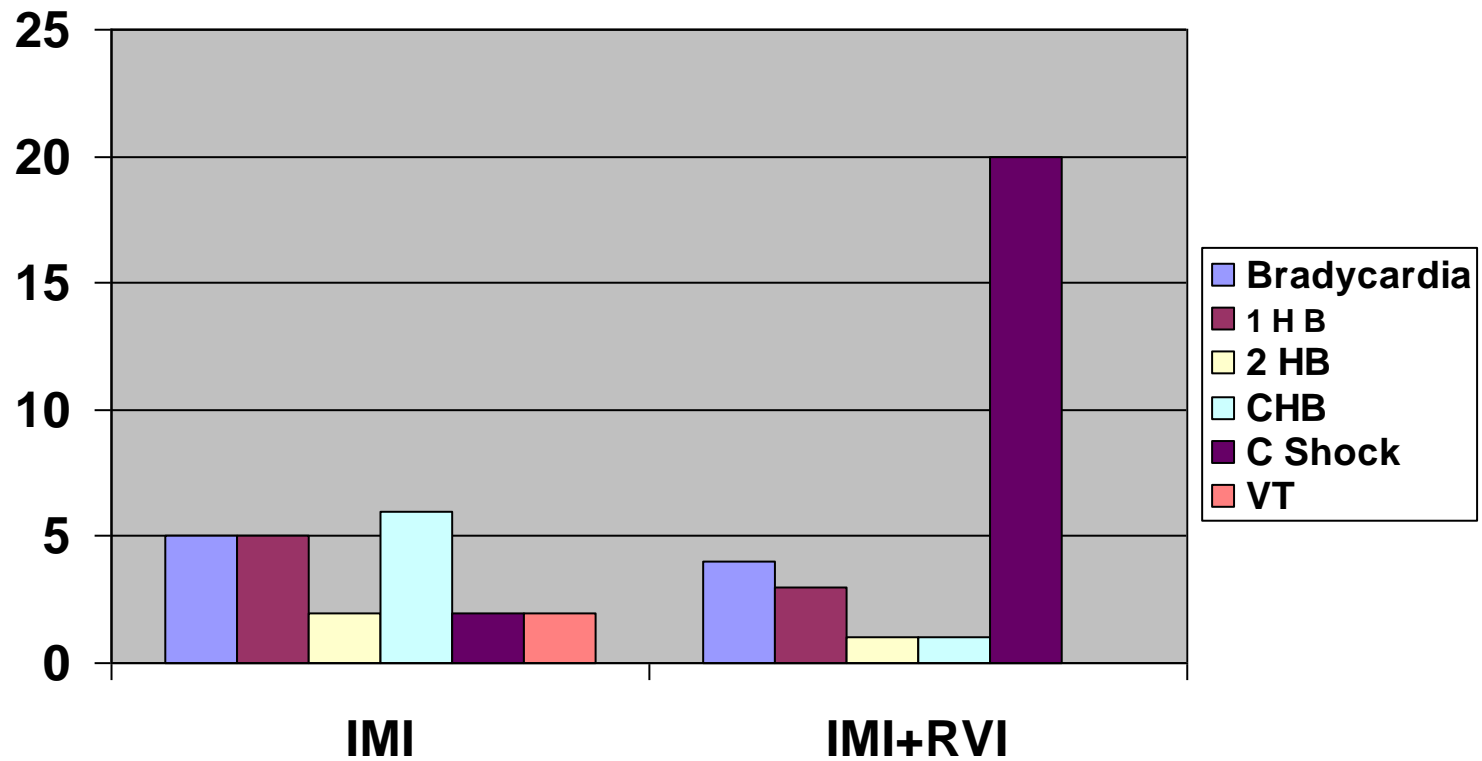
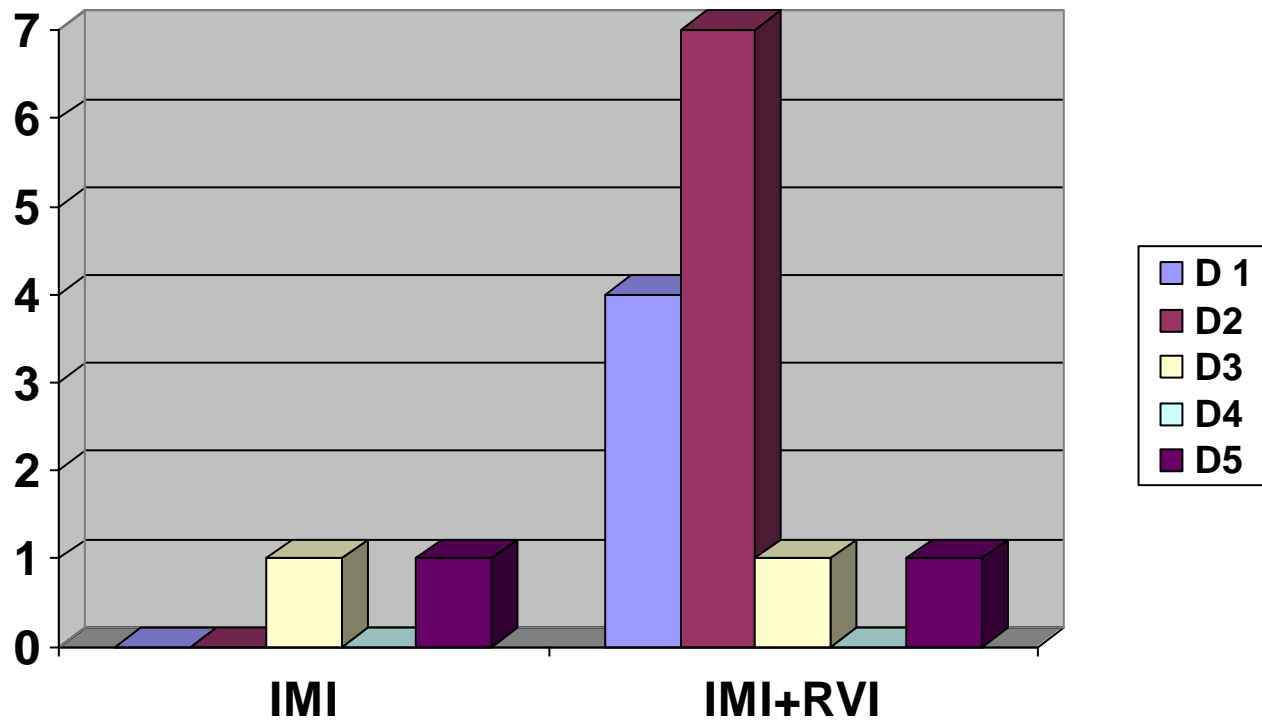


Fig.9: Death and hospital stays (days) of patients



Conclusions

- Right ventricular involvement during acute inferior myocardial infarction is a strong independent predictor of major complications and in-hospital mortality.
- In each patient of inferior myocardial infarction we should specifically look for right ventricular infarction and take necessary precautions.



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THANK YOU