

STEMI and NSTEMI patients with renal failure

Data from the Berlin Myocardial Infarction Registry (BMIR)

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Background

Since its introduction, guideline-based therapy has significantly improved the outcome for patients with acute myocardial infarction (MI). MI patients with renal failure (RF) are a high-risk group. We accordingly compared therapy and outcome for MI patients with ST-elevation MI (STEMI) and non-ST-elevation MI (NSTEMI), with and without RF, with data from the Berlin Myocardial Infarction Registry.

Results

Table 1: Comparison of STEMI patients with and without RF: Baseline characteristics, treatment and outcome (2007-2009)

	Age (average in years)	Women (in %)	Diabetes (in %)	Physician escorted rescue system (in %)	Symptom and hospital arrival (median in hrs)
with RF (n=442)	75.5 yrs	43.2%	53.6%	62.2%	2.2 h
without RF (n=3158)	62.6 yrs	28.4%	22.5%	62.3%	2.1h
<i>p-value*</i>	<0.001	<0.001	<0.001	0.984	0.912

Fig. 1: Comparison of STEMI/NSTEMI patients with and without RF: PCI <48h (2007-2009)

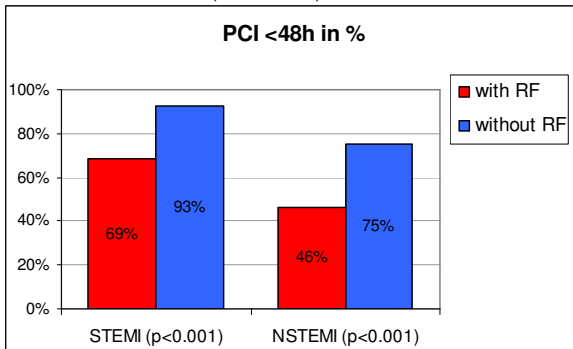
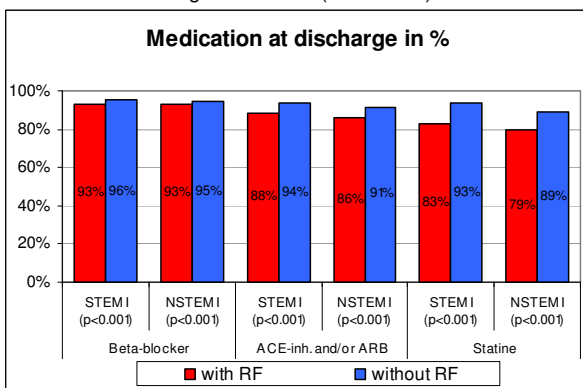


Fig. 3: Comparison of STEMI/NSTEMI patients with and without RF: Discharge medication (2007-2009)



Conclusion

STEMI and NSTEMI patients with RF differ in baseline characteristics from those without RF. Their time between symptom onset and hospital arrival, as well as their first-line treatment by the physician-escorted rescue system, are comparable to those patients without RF. STEMI and NSTEMI patients with RF receive guideline-based treatment less often than patients without RF. Hospital mortality is considerably higher for STEMI and NSTEMI patients with RF.

Methods

The BMIR is an ongoing myocardial infarction registry that collects data on treatment and outcome of AMI patients in Berlin. For this analysis we included data from 7,600 AMI patients ($n = 4,000$ NSTEMI and $n = 3,600$ STEMI) treated in a Berlin hospital between 2007 and 2009. A total of 1,379 patients (18.1 %) suffered from RF.

Table 2: Comparison of NSTEMI patients with and without RF: Baseline characteristics, treatment and outcome (2007-2009)

	Age (average in years)	Women (in %)	Diabetes (in %)	Physician escorted rescue system (in %)	Symptom and hospital arrival (median in hrs)
with RF (n=937)	78.0 yrs	44.1%	54.6%	44.1%	2.9 h
without RF (n=3063)	68.0 yrs	33.5%	28.1%	43.3%	3.0 h
<i>p-value*</i>	<0.001	<0.001	<0.001	0.682	0.575

Fig. 2: Comparison of STEMI/NSTEMI patients with and without RF: Hospital mortality (2007-2009)

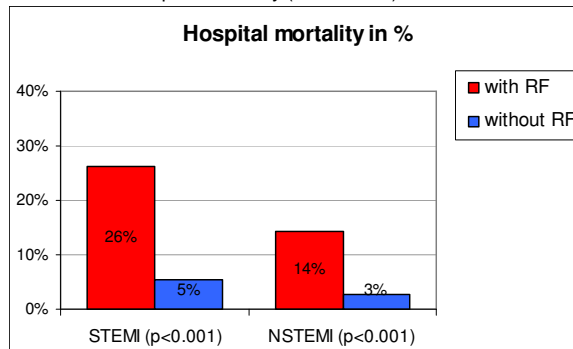
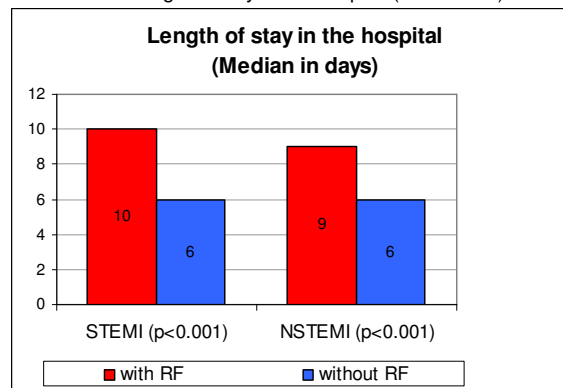


Fig. 4: Comparison of STEMI/NSTEMI patients with and without RF: Length of stay in the hospital (2007-2009)



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4. Phase des BHIR seit 1.4.2008

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