

## Prognostic Impact of Gender on Clinical Outcomes in Acute Coronary Syndromes

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### **Background:**

Recent literature had shown a greater risk for adverse clinical outcomes following acute coronary syndrome (ACS) events in women undergoing percutaneous coronary intervention (PCI). We aimed to assess the impact of gender on clinical results following ACS.

### **Method:**

We used our database of patients treated for acute myocardial infarction using emergent coronary angioplasty between 1/4/2004-31/12/2011. Procedural and angiographic results and clinical outcomes up to 5 years were collected and adjudicated for major cardiac adverse events. The outcome of 5819 patients with ACS undergoing emergent PCI was analyzed and compared according to gender.

### **Result:**

1425 (24.5%) of the patients were women. They had presented with ACS at an older age ( $72.7 \pm 11.3$  vs.  $65.2 \pm 12.3$ ,  $p < 0.001$ ), more had diabetes mellitus (46.7% vs. 40.0%,  $p < 0.001$ ) and prior heart failure (12.1% vs. 7.26%,  $p = 0.001$ ). Mortality and combined endpoints of death, myocardial infarction (MI) and target vessel revascularization (TVR) were higher in women- see table 1. In a multivariate analysis using age, prior diabetes, heart failure, coronary artery bypass graft surgery, baseline GFR and presentation with ST- elevation MI and proximal LAD disease, female gender was no longer an independent predictor of outcomes. **Table 1:**

<b>Death</b>	<b>6m</b>	<b>1y</b>	<b>2y</b>	<b>3y</b>	<b>4y</b>	<b>5y</b>
<b>Male</b>	3.86%	5.13%	7.20%	9.67%	11.72%	13.22%
<b>n</b>	4394	4099	3830	3353	2832	2312
<b>Female</b>	7.06%	8.84%	12.77%	16.47%	20.03%	21.63%
<b>n</b>	1425	1281	1199	1044	851	688
<b>P value</b>	0.0000					
<b>Death/MI/TVR</b>						
<b>Male</b>	8.03%	11.96%	16.12%	19.94%	22.88%	24.65%
<b>n</b>	4394	3921	3557	3020	2494	1991
<b>Female</b>	13.26%	16.68%	21.43%	25.55%	28.72%	30.72%
<b>n</b>	1425	1195	1093	933	750	604
<b>P value</b>	0.0000					

### **Conclusion:**

Our results indicate a higher mortality rate among female patients sustaining PCI for ACS. However, after correction for advanced age and co-morbidities, gender was no longer an independent predictor of outcomes.