

monitoring and no serious arrhythmia was detected. The mean scores of the domains of the SF-36 namely, physical functioning, role functioning, social functioning, mental health, vitality, pain and general health were similar in ASD patients and the control group (Table 1). The only sociodemographic variable that was found to be associated with quality of life outcome parameters in the patient group was educational level. Higher educational level was significantly associated with better mental health and better general health perception ( $r=0.248$ ,  $p=0.04$ ;  $r=0.315$ ,  $p=0.008$ , respectively). **Conclusion:** Adult patients who underwent percutaneous ASD closure perceive their quality of life as good as their healthy counterparts.

**Table 1**

	ASD patients	Control group	p value
Physical functioning	73.8±20.7	73.9±27.3	0.97
Role physical	67.4±41.2	69.2±40.2	0.79
Pain	64.3±25.5	61.7±25.6	0.55
General health	60.5±25.3	62.3±20.8	0.64
Vitality	56.3±21.2	55.2±20.9	0.76
Social functioning	74.9±22.9	73.3±22.8	0.69
Role emotional	63.6±39.9	62.2±41.9	0.84
Mental health	63.7±19.0	63.6±17.5	0.96

The SF-36 domain scores in ASD patients and the control group.

**PP-357**

**Impact of Metabolic Syndrome on the Long-Term Cardiovascular Outcomes in Patients with Non-ST Segment Elevation Myocardial Infarction and Unstable Angina Pectoris**

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**Background and AIM:** Metabolic syndrome (MS) is associated with cardiovascular mortality and morbidity in patients with acute coronary syndrome. The purpose of this study was to evaluate the impact of MS on long-term clinical outcomes in patients with pure non-ST segment myocardial infarction (NSTEMI) or unstable angina pectoris (USAP).

**Methods-Results:** We prospectively enrolled 310 consecutive NSTEMI/USAP patients (74 females; mean age, 59.3±11.9 years). The study population was divided into two groups: MS(+) and MS(-). The clinical outcomes of the patients were followed for up to 3 years.

Increased 3-year cardiovascular mortality and reinfarction were observed in the MS(+) group, as compared to the MS(-) group (15 vs. 3.4%,  $p=0.001$ , and 22.2 vs. 8.3%,  $p=0.001$ , respectively). Hospitalization rates for heart failure and stroke were not significantly different between the two groups on follow-up. By a Cox multivariate analysis, a significant association was noted between MS and the adjusted risk of 3-year cardiovascular mortality (odds ratio 3.4, 95% confidence interval, 1.24-9.1,  $p=0.02$ ).

**Conclusion:** These results suggest that MS is associated with an increased risk of 3-year cardiovascular mortality and reinfarction in patients with NSTEMI/USAP.

**PP-358**

**Clinical Outcomes and Effectiveness of Renal Artery Stenting in Patients With Critical Atherosclerotic Renal Artery Stenosis: Does it Improve Blood Pressure Control and Renal Function Assessed by Estimated Glomerular Filtration Rate?**

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**Objectives:** Atherosclerotic renal artery stenosis (ARAS) is associated with uncontrolled hypertension and chronic renal failure. The aim of this study is to evaluate the influence of gender and presence of chronic renal failure on the outcomes of percutaneous transluminal renal artery stenting (PTRAS) due atherosclerosis.

**Methods:** A total of 28 ARAS patients underwent PTRAS and 36 stents were placed. Basal characteristics, laboratory data and blood pressure of patients were recorded. The differences between genders and improvement/deterioration of renal functions and blood pressure were analyzed. The predictors of outcomes were determined.

**Results:** Baseline characteristics were similar between men and women. Significant improvement of systolic and diastolic blood pressure control was achieved after PTRAS (153.04±17.07 mmHg vs. 124.75±11.40 mmHg,  $p=0.001$  and 92.50±10.76 mmHg vs. 77.54±8.23 mmHg,  $p<0.001$ , respectively) (Table-1). Although mean estimated glomerular filtration rate (eGFR) and creatinine levels did not significantly improved at 6 month follow up visit in compared to baseline values, of the 28 patients 13 (46.4%) patients had improvement of renal functions.

**Conclusion:** Our results suggests that PTRAS is a safe procedure and may offer blood pressure control but beneficial effects of PTRAS on renal function may be anticipated in selected group of patients, especially those with a low eGFR.

**Table 1**

Variable	Pre-PTRAS	Post-PTRAS	p
SP	153.04±17.07	124.75±11.40	<0.001
Men	146.92±15.88	124.08±9.00	<0.001
Women	158.33±16.76	125.33±13.43	<0.001
DP	92.50±10.76	77.54±8.23	<0.001
Men	87.31±8.81	76.31±7.93	0.001
Women	97.00±10.49	78.60±8.60	<0.001
Number of drug	3.71±0.85	2.46±0.69	<0.001
Men	3.85±0.80	2.31±0.75	<0.001
Women	3.60±0.91	2.60±0.63	0.006
Creatinine	1.13±0.31	1.13±0.31	0.150
Men	1.41±0.53	1.17±0.32	0.088
Women	1.15±0.42	1.10±0.30	0.767
eGFR	60.89±35.21	61.75±21.08	0.899
Men	62.77±31.31	70.69±22.94	0.300
Women	59.27±39.30	54.00±16.37	0.632

**Table 2:** Pre-Percutaneous transluminal renal angioplasty with stent (PTRAS) and at 6 month follow up results of blood pressure, medications, creatinine and estimated glomerular filtration rate. Abbreviations: PTRAS, percutaneous transluminal renal artery stenting; SP, systolic blood pressure; DP, diastolic blood pressure; eGFR, estimated glomerular filtration rate.

**PP-359**

**Comparison of Carvedilol, Nebivolol and Metoprolol for the Prevention of Contrast Induced Nephropathy**

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**Background:** Metoprolol, carvedilol and nebivolol were different beta blockers with different properties. In the literature there are various studies evaluating renal effects of these beta blockers under different conditions. However, to the best of our knowledge there is not any study comparing preventive effects of these three beta blockers with each other against contrast induced nephropathy (CIN).

**AIM:** We aimed to investigate and compare the probable prophylactic effects of three beta blocker agents, carvedilol, nebivolol and metoprolol against CIN.

**Method:** 184 patients who were hospitalized for further evaluation with coronary angiography and have been using beta blocker agent (50 mg metoprolol, 25 mg carvedilol or 5 mg nebivolol) at least for a week were enrolled to the study. Exclusion criteria included dialysis patients, recent exposure to contrastmedia or a nephrotoxic agent within 7 days before the study, urgent percutaneous coronary intervention (PCI), requiring loop diuretics, theophylline/ aminophylline, dopamine throughout the study, hemodynamically unstable patients. Patients were divided into three groups: metoprolol (M) (64 patient), nebivolol (N) (60 patient), carvedilol (C) (60 patient). All groups were hydrated before and after the coronary procedure for 12 hours with the rate of 1 ml/kg/hour intravenous isotonic saline. Serum creatinine (Cr) levels were checked in the second and fifth days of the study. The primary end point was the occurrence of CIN. We defined CIN as an increase  $\geq 0.5$  mg/dL and/or  $\geq 25\%$  in serum creatinine (SCr) concentration at day 2 and/or day 5 of the procedure.

**Results:** The distribution of various characteristics of the participants is shown in Table 1 and Table 2. Seven (10.9%) patients in group M developed CIN, as did 5 patients (8.3%) in group N and 2 patients (3.3%) in group C. Patients in carvedilol group developed less CIN, however the difference with the group C and the others did not reach statistical significance ( $p=0.283$ ) (Figure 1). Changes in mean Cr level from baseline to day 2 and day 5 were not statistically significant in all groups.

**Conclusion:** If there is indication for a beta blocker therapy before the coronary angiography procedure, although the comparative results with metoprolol and nebivolol did not reach statistical significance, this study demonstrated a weak evidence favouring against carvedilol prescription as it would be a better choice for the prevention of CIN.

