Disclosures: Y. Khalid *Nothing to disclose*. T. Roy *Nothing to disclose*. K. Dasu *Nothing to disclose*. M. Lee *Nothing to disclose*. R. Umrani *Nothing to disclose*. N. Dasu *Nothing to disclose*.

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A-16 | Outcomes of Patients With Peripartum Cardiomyopathy (PCM) and Acute Myocardial Infarction (AMI): A Population-Based Study

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Background: Peripartum cardiomyopathy is a relatively uncommon cause of heart failure. Although the condition is rare, the prevalence of thrombus formation and subsequent embolic events appears to be higher in these women than in the usual heart failure population. Large-scale studies looking for outcomes of patients with PCM and AMI are lacking. We conducted a retrospective cohort study using the NIS to identify outcomes of patients with PCM and associated AMI.
Methods: Data were extracted from the National Inpatient Sample (NIS) Database for the years 2015-2019. The NIS was searched for hospitalizations of adult patients with peripartum cardiomyopathy (PCM) with and without a concomitant diagnosis of AMI using ICD-10 codes. We identified 19,960 patients with PCM of which 470 had a concomitant diagnosis of AMI. Multivariate logistic and linear regression analysis was used accordingly to adjust for confounders. STATA software was used for statistical analysis.
Results: Patients with PCM and associated AMI had higher inpatient mortality (OR 4.07, CI 1.59-10.43, $p<0.001$) and total hospital charges ($17,190, CI $10,821-$23,555, $p<0.04$). However, the there was no statistically significant difference in length of stay (LOS) for those with PCM and AMI compared to those with PCM only.
Conclusions: Peripartum cardiomyopathy is defined as the manifestation of heart failure in the last month of pregnancy or within 5 months of delivery in the absence of any other etiology or prior heart disease. On its own, PCM has very high mortality rates ranging between 25% to 50%. Our study has shown that patients with peripartum cardiomyopathy and AMI had increased mortality and total cost of hospital charges. These patients should be monitored very closely and treated aggressively in order to decrease hospital-associated mortality.
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A-17 | In-Hospital Outcomes of Patients With Gout Complicaited by Acute ST Elevation Myocardial Infarction (STEMI)

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Background: Previous studies have shown that elevated uric acid and gout could be important risk factors for increased cardiovascular disease. However, there is a scarcity of information regarding in-hospital outcomes for patients have a STEMI with an acute exacerbation of gout. Our study uses the National Inpatient Sample (NIS) to examine outcomes for patients with both acute gout and STEMI on admission.
Methods: The NIS was analyzed using ICD-10 codes for patients (>age 18) with gout and concomitant STEMI versus patients with only gout. Data was extracted from the year 2015 to 2019. Patient characteristics (such as age, gender, ethnicity) and hospital characteristics were identified and analyzed. Multivariate logistic and linear regression analysis was used accordingly to adjust for confounders. STATA software was used for statistical analysis.
Results: This study included 2,414,860 patients with gout of which 4,465 of these patients had a STEMI. These patients had higher inpatient mortality (OR 10.01, CI: 8.41-11.91, $p<0.0001$), length of stay (LOS) (+2.24 days, CI: 1.86-2.62, $p<0.0001$), total hospital charges (THC) ($47,326, CI: $42,019-$52,634, $p<0.0001$). On secondary analysis, mortality was decreased if the patient was male (OR 0.54, CI: 0.36-0.81, $p=0.003$). LOS was increased if patients had congestive heart failure (+2.38 days, CI: 1.41- 3.36, $p<0.005$), acute kidney injury (AKI) (+2.07 days, CI: 1.09-3.05, $p<0.0001$), for males (+2.06 days, CI: 1.13- 2.97, $p<0.024$), or black ethnicity (+2.43 days, CI: 1.04 - 3.81, $p<0.043$). THC were increased if patients developed cardiogenic shock ($127,275, CI: $102,409 - $152,142, $p<0.0001$), AKI ($30,366, CI: $12,506-$48,2256, $p<0.001$), for Asian ethnicity ($91,020, CI: $43,597-$138,444, $p<0.0001$), or male ($26,923, CI: $10,165-$43,680, $p<0.002$).
Conclusions: Based on the results of our study, patients with gout and concomitant STEMI have higher mortality, LOS, and THC.
Disclosures: Y. Khalid *Nothing to disclose*. K. Dasu *Nothing to disclose*. M. Lee *Nothing to disclose*. T. Roy *Nothing to disclose*. R. Umrani *Nothing to disclose*. N. Dasu *Nothing to disclose*. N. Gabriel *Nothing to disclose*.

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A-18 | In-Hospital Outcomes of Impella versus ECMO in ST Elevation Myocardial Infarction (STEMI) Complicated by Cardiogenic Shock

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Background: Short-term mechanical support such as an ECMO or Impella have been utilized as bridge therapy to treat ST-elevation myocardial infarction (STEMI) complicated by cardiogenic shock. Our aim of the study was to compare in-hospital outcomes associated with ECMO and Impella in patients with STEMI complicated by cardiogenic shock.
Methods: In a retrospective study of National Inpatient Sample 2017 data, we used ICD-10 codes to identify patients with a primary diagnosis of STEMI and cardiogenic shock who received ECMO or Impella while hospitalized. Multivariate logistic regression was used to adjust for patient demographics, hospital demographics, and relevant comorbidities. Primary outcomes were mortality, length of stay (LOS), and total hospital charges (TOTHC).

Results: Among 47,022 patients hospitalized for STEMI, 874 (1.8%) received Impella support and 210 (0.4%) received ECMO support. ECMO use was associated with greater in-hospital mortality (59% vs 43%, odds ratio [OR] 4.19, $p<0.001$), LOS (19 days vs. 9 days, OR 6.86, $p<0.0001$) and TOTHC ($780,00 vs $380,000, OR, $p<0.0001$) than Impella support. Furthermore, ECMO patients more frequently had respiratory failure (OR 1.99, $p<0.046$) and ventricular tachycardia or fibrillation (26.05% vs 20.74%, OR 1.35, $p=0.008$), and respiratory failure requiring intubation (42.21% vs 28.53%, OR 1.83, $p<0.001$) but patients with Impella support had higher acute kidney injury (42.3% vs 17.9%, OR 3.16, $p<0.002$) and cardiac arrest (64.3% vs 18.3%, OR 2.38, $p<0.017$). There was no statistically significant difference in acute gastrointestinal bleeding, CVA/TIA, ICH ($p>0.1$). Females also had higher mortality than males for both devices (OR 3, $p<0.03$).
Conclusions: Previous clinical trials have associated comparable outcomes with Impella to ECMO in patients with STEMI and cardiogenic shock. Both devices are associated with a lower all-cause 30 day mortality and lower inotrope use as well as comparable safety outcomes. Our results suggest that in real-world inpatient STEMI complicated by cardiogenic shock, ECMO was associated with a higher hospital mortality, hospital length of stay, and total hospital charges compared to Impella support.
Disclosures: Y. Khalid *Nothing to disclose*. K. Dasu *Nothing to disclose*. T. Roy *Nothing to disclose*. R. Umrani *Nothing to disclose*. M. Lee *Nothing to disclose*. N. Dasu *Nothing to disclose*. N. Gabriel *Nothing to disclose*.

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A-19 | Perioperative Cardiac Thrombotic Outcomes of Patients Who Underwent Kidney Transplant After Percutaneous Coronary Intervention With Second-Generation Drug-Eluting Stents: A Single Center Retrospective Descriptive Study

Check for updates

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Background: Noncardiac surgery (NCS) after recent percutaneous coronary intervention (PCI) is associated with increased risk of adverse cardiac events and perioperative bleeding. Some chronic kidney disease (CKD) patients undergoing pre-kidney transplant (KT) evaluation may require PCI. Newer generation drug-eluting stent (DES) has decreased the risk of stent thrombosis and requires a shorter duration of dual antiplatelet therapy (DAPT). This may lead to shorter waiting time between PCI and KT. This study aims to determine perioperative cardiac outcomes of patients who underwent KT post-PCI with second-generation DES.
Methods: A descriptive study was done in a tertiary institution including CKD patients who underwent KT post-PCI from January 2013 to December 2021. Occurrence of perioperative ACS during KT was recorded. Secondary outcomes included excessive surgical bleeding and in-hospital mortality.
Results: Seventeen patients were included in the study. There was no recorded perioperative ACS in patients who underwent KT post-PCI, with the shortest interval of 67 days. However, there is one non-cardiac in-hospital mortality. Most of the transplants were done within 91-180 days (41%). Eleven percent of the cases had excessive surgical bleeding, wherein 47% of the cases were still on DAPT within 7 days of the surgery.
Conclusions: This study showed no occurrence of perioperative ACS in patients who underwent KT after second-generation DES placement, with the shortest interval of 67 days. This may aid in making a guideline on the optimal timing of KT after coronary angioplasty using the newer generation DES. Future studies may be done in a multicenter setting.

Table I. Occurrence of Perioperative ACS in Relation to the Timing of KT post-PCI

Time from PCI to KT	n (%)	With ACS (%)	Without ACS (%)	Other Outcome (%)+
≤ 90 days	2 (11.8)	0	2 (11.8)	0
91-180 days	7 (41.2)	0	7 (41.2)	1 (5.9)
181-365 days	6 (35.3)	0	6 (35.3)	0
≥ 366 days	2 (11.8)	0	2 (11.8)	0

+Non-cardiac in-hospital mortality

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A-20 | ST-Segment Elevation Myocardial Infarction in the Younger Population in the United States and Their Predictors: A Race- and Gender-Based Analysis

Check for updates

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Background: Incidence of STEMI in the young population has been rising in the US. Little is known about the effect of race and gender on the prevalence, localization, and predictors of STEMI among the young population.
Methods: We queried young patients (age < 50 yrs) with primary diagnosis of STEMI from the National Inpatient Sample database (2017-2019) and studied the effect of race on STEMI prevalence and localization among young men and women. We also evaluated the predictors of STEMI among young patients using the logistic regression.
Results: A total of 69,950 STEMI patients (mean age 43 yrs, 78% men, 66% White) were studied. Black women had a higher and black men had a lower prevalence of STEMI. White young men had a higher prevalence of inferior STEMI. Known CAD, familial hypercholesterolemia, smoking and family history of CAD are strong and independent predictors of STEMI in young.
Conclusions: Our study highlights key racial and gender-based disparities and major predisposing factors of STEMI in the young which can help optimize the preventive strategies and improve patient outcomes.

Table 1. Racial Variations in Localization of STEMI in Young Men and Women

	White	Black	Hispanic	Others	p value
Male - n (%)	34265 (77)	6300 (69.7)	6405 (82.2)	5040 (86.2)	**<0.01**
Age (yrs)	43.6	41.4	43	43.1	**<0.01**
LM STEMI (n)	60	15	35	20	0.07
LAD STEMI (n)	4145	815	625	695	**0.02**
Anterior wall STEMI (n)	14075	2610	2600	2220	0.32
LCx STEMI (n)	635	140	90	60	0.19
Lateral wall STEMI (n)	635	140	90	60	0.19
RCA STEMI (n)	3475	455	555	495	**0.01**
Inferior wall STEMI (n)	16320	2660	2870	2195	**<0.01**

	White	Black	Hispanic	Others	p value
Female-n (%)	10185 (23)	2740 (30.3)	1385 (17.8)	805 (13.8)	**<0.01**
Age (yrs)	43.5	41.9	42.7	43.4	**<0.01**
LM STEMI (n)	10	0	5	0	0.47
LAD STEMI (n)	1215	330	160	100	0.99
Anterior wall STEMI (n)	4075	930	555	285	0.06
LCx STEMI (n)	260	75	5	15	0.12
Lateral wall STEMI (n)	260	75	5	15	0.12
RCA STEMI (n)	950	235	105	85	0.69
Inferior wall STEMI (n)	4655	1270	610	405	0.64

LM – left main, LAD – left anterior descending, LCx – left circumflex, RCA – right coronary artery