

OBESITY IS NOT ASSOCIATED WITH A DIFFERENTIAL OUTCOME FOLLOWING CORONARY ARTERY BYPASS SURGERY

Lohit Garg MD
Lehigh Valley Health Network, lohit.garg@lvhn.org

Sahil Agrawal MD

Amitoj Singh

Raman Dusaj
Raman_S.Dusaj@lvhn.org

Jamshid Shirani

Follow this and additional works at: <https://scholarlyworks.lvhn.org/medicine>



Part of the [Cardiology Commons](#)

Published In/Presented At

Garg, L. Agrawal, S. Singh, A. Dusaj, R. Shirani, J. (2018, March). OBESITY IS NOT ASSOCIATED WITH A DIFFERENTIAL OUTCOME FOLLOWING CORONARY ARTERY BYPASS SURGERY. *Journal of the American College of Cardiology*. 71(11). DOI: 10.1016/S0735-1097(18)30567-9.

This Article is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.



Acute and Stable Ischemic Heart Disease

OBESITY IS NOT ASSOCIATED WITH A DIFFERENTIAL OUTCOME FOLLOWING CORONARY ARTERY BYPASS SURGERY

Moderated Poster Contributions

Acute and Stable Ischemic Heart Disease Moderated Poster Theater, Poster Hall, Hall A/B

Sunday, March 11, 2018, 3:45 p.m.-3:55 p.m.

Session Title: Surgical Revascularization Outcomes: Has the Clock Struck Midnight?

Abstract Category: 03. Acute and Stable Ischemic Heart Disease: Therapy

Presentation Number: 1273M-03

Authors: *Lohit Garg, Sahil Agrawal, Amitoj Singh, Raman Dusaj, Jamshid Shirani, Lehigh Valley Health Network, Allentown, PA, USA*

Background: Conflicting data exists regarding the impact of obesity on mortality and morbidity following coronary artery bypass graft (CABG) surgery with some suggesting a paradoxical reduction in adverse outcomes. We aimed to compare the in-hospital outcomes of CABG in obese and non-obese subjects.

Methods: The Nationwide Inpatient Sample for years 2003- 2014 was used to identify adults (age ≥ 18 years) who underwent isolated CABG.

Results: A total of 2,297,932 patients underwent CABG of which 554,857 (28.2%) surgeries were for acute coronary syndrome (ACS) and 1,743,075 (74.2%) were elective. Obese patients in either group were younger, were more likely to be female and had more co-morbidities at baseline (Table 1). There was no difference in adjusted all-cause mortality in obese versus non-obese patients with ACS (2.7%-vs-4.2%, OR=1.03, 95% CI=0.98-1.07, p=0.25) or elective (0.9%-vs-1.5%, OR=0.98, 95% CI=0.94-1.03, p=0.47) CABG. Adjusted rates of acute kidney injury requiring dialysis and of wound infection were higher among obese patients whereas those of acute stroke were lower. Rates of blood transfusion were lower in obese patients undergoing CABG for ACS but not for elective indications. Obese patients with and without ACS more often received internal mammary artery grafts (90.8%-vs-88.5%, p<0.001).

Conclusion: Data from this comprehensive national database did not show a significant difference in in-hospital mortality among obese and non-obese patients undergoing CABG surgery.

Table 1. Baseline characteristics and demographics

ACS (n=554,857)			
	Obese	Non-obese	p
Age (years)	61.4±10.4	65.5±11.4	<0.001
Male	64.4%	73.0%	<0.001
Smoker	43.0%	37.6%	<0.001
Dyslipidemia	71.6%	55.9%	<0.001
History of CAD	95.9%	91.9%	<0.001
History of AMI	11.3%	8.7%	<0.001
Family history of CAD	14.3%	9.4%	<0.001
History of stroke	3.4%	2.7%	<0.001
History of CABG	1.1%	1.0%	0.002
History of PCI	11.2%	9.0%	<0.001
Elective (n=1,743,075)			
Age (years)	62.3±9.8	65.9±10.4	<0.001
Male	66.3%	75.3%	<0.001
Smoker	39.4%	35.7%	<0.001
Dyslipidemia	77.0%	66.1%	<0.001
History of CAD	99.6%	99.1%	<0.001
History of AMI	17.4%	15.7%	<0.001
Family history of CAD	13.2%	9.7%	<0.001
History of stroke	3.6%	3.2%	<0.001
History of CABG	1.4%	1.5%	0.002