

Beaumont Health

Beaumont Health Scholarly Works and Archives

Conference Presentation Abstracts

Cardiology

10-1-2019

Transfemoral Transcatheter Aortic Valve Replacement Using Fascia Iliaca Block as an Alternative Approach to Conscious Sedation as Compare to General Anesthesia: Findings From a Single Center

Wei Lau

Beaumont Health

Francis Shannon

Beaumont Health

George Hanzel

Beaumont Health

Robert Safian

Beaumont Health

Amr Abbas

Beaumont Health

Follow this and additional works at: https://scholarlyworks.beaumont.org/cardiology_confabstract



next page for additional authors
Part of the Cardiology Commons

Recommended Citation

Lau W, Shannon F, Hanzel G, Safian R, Abbas A et al. Transfemoral transcatheter aortic valve replacement using fascia iliaca block as an alternative approach to conscious sedation as compare to general anesthesia: findings from a single center. *J Am Coll Cardiol*. 2019 Oct: 74(13 Suppl)B792. doi: 10.1016/j.jacc.2019.08.1052.

This Conference Proceeding is brought to you for free and open access by the Cardiology at Beaumont Health Scholarly Works and Archives. It has been accepted for inclusion in Conference Presentation Abstracts by an authorized administrator of Beaumont Health Scholarly Works and Archives. For more information, please contact janet.zimmerman@beaumont.org.

Authors

Wei Lau, Francis Shannon, George Hanzel, Robert Safian, Amr Abbas, Marc Sakwa, Steven Almany, Ivan Hanson, Nai-Wei Chen, and Randy Fayne

TCT-808

Transfemoral Transcatheter Aortic Valve Replacement Using Fascia Iliaca Block as an Alternative Approach to Conscious Sedation as Compare to General Anesthesia: Findings From a Single Center



Wei Lau,¹ Francis Shannon,¹ George Hanzel,¹ Robert Safian,¹ Amr Abbas,¹ Marc Sakwa,¹ Steven Almany,¹ Ivan Hanson,¹ Nai-Wei Chen,¹ Randy Fayne¹
¹Beaumont Health System, Royal Oak, Michigan

BACKGROUND General anesthesia (GA) has been the anesthetic for patients who are at intermediate to high risk for perioperative mortality undergoing transfemoral transcatheter aortic valve replacement (TF-TAVR). TF-TAVR has been performed safely using local anesthetic and conscious sedation (CS) as an alternative to GA. We have adopted a novel anesthetic approach for TF-TAVR using a fascia iliaca block (FIB), supplemented by minimal CS (MCS). Whether FIB-MCS is safe and effective compared with GA for patients undergoing TF-TAVR is currently not known.

METHODS This is a retrospective, propensity-matched observational study of consecutive TF-TAVR patients from January 2013 to December 2017. Data were collected from electronic medical records linked with the Society of Thoracic Surgeons (STS) database and the TVT (Transcatheter Valve Therapy) Registry. Primary endpoints were intensive care unit (ICU) and in-hospital length of stay (LOS). Secondary endpoints were: 1) 30-day and 1-year mortality; 2) 30-day

hospital readmission rate; 3) incidence of failure of FIB-MCS; 4) operating room time (patient in to patient out); 5) in-hospital safety outcomes; and 6) 30-day and 1-year quality of life (Kansas City Cardiomyopathy Questionnaire [KCCQ-12]).

RESULTS A total of 304 patients (47% men, mean age 83 years) underwent TF-TAVR using FIB-MCS (n = 219) and GA (n = 85). Propensity matching identified 162 patients (FIB-MCS, n = 108; GA, n = 54). For the primary endpoints, patients receiving FIB-MCS had a shorter ICU LOS (47.6 h vs. 69.1 h; p = 0.004) and in-hospital median LOS (3 days vs. 6 days; p < 0.001). For the secondary endpoints: 1) there was similar 30-day (0% vs. 3.7%; p = 0.11) and 1-year (7.4% vs. 5.6%; p = 0.75) mortality; 2) multivariate analysis showed that FIB-MCS patients were less likely to be rehospitalized for all-causes (odds ratio: 0.32; 95% confidence interval: 0.13 to 0.76); 3) 5 patients (2.3%) required conversion of FIB-MCS to GA intraoperatively; 4) patients receiving FIB-MCS had a shorter operating room time (197.6 ± 56.3 min vs. 245.3 ± 42.9 min; p < 0.001); 5) clinical safety outcomes were similar between the cohorts; and 6) 30-day and 1-year mean KCCQ-12 scores were 2% and 3% higher.

CONCLUSION TF-TAVR using FIB-MCS is feasible and safe, with a very low risk for conversion to GA, resulting in shorter operating room time, shorter ICU and in-hospital LOS, lower risk for 30-day rehospitalization, and similar 30-day and 1-year all-cause mortality with a trend for better health-related quality of life at 1-year follow-up.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic