Abstract: 4071

Early changes in quality of life after transcatheter aortic valve replacement: One-year results from the 3M TAVR Study

Authors:
S. Lauck¹, D.A. Wood¹, S.J. Baron², B. Borregaard³, H. Wijeysundera⁴, A. Asgar⁵, M. Hawkey⁶, P. Keegan⁷, M. Natarajan⁸, J.B. Masson⁹, K. Humphries¹⁰, R. Welsh¹¹, J. Cairns¹², J.G. Webb¹, D. Cohen², ¹St. Paul's Hospital - Vancouver - Canada, ²Saint Lukes Hospital - Kansas City - United States of America, ³Odense University Hospital - Odense - Denmark, ⁴Sunnybrook Health Sciences Centre - Toronto - Canada, ⁵Montreal Heart Institute - Montreal - Canada, ⁶Columbia University - New York - United States of America, ⁷Emory University Hospital - Atlanta - United States of America, ⁸McMaster University - Hamilton - Canada, ⁹University of Montreal - Montreal - Canada, ¹⁰ICVHealth - Vancouver - Canada, ¹¹Mazankowski Alberta Heart Institute - Edmonton - Canada, ¹²University of British Columbia - Vancouver - Canada.

On behalf: 3M TAVR Investigators

Topic(s):
Valvular Heart Disease: Intervention

Citation:
European Heart Journal ( 2019 ) 40 ( Supplement ), 2451

Background: In patients with severe calcific aortic stenosis, transcatheter aortic valve replacement (TAVR) has been shown to significantly improve quality of life (QOL). However, changes in QOL at early follow-up (<1 month), and following next-day discharge are poorly understood.

Methods: A total of 411 patients at 13 centers were enrolled in the Multimodality, Multidisciplinary but Minimalist TAVR (3M TAVR) study in 2015–2017. QOL was evaluated using the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) in participants with a baseline score and at least one score at 2 weeks, 30 days and 1 year. Study endpoints were change in (1) KCCQ-Overall Summary Score (KCCQ-OS) and (2) minimal clinically important differences (MCID). Mixed effects models were used to explore patterns of change from baseline, with fixed terms for time, status at 1-year and their interaction terms, and a random intercept for subject to account for within subject correlation. Descriptive statistics were used to report MCID.

Results: Data were available for 358 (87.1%) participants. 216 (60.3%) were men with a median age 84.0 and STS 5.0. There was significant increase in QOL 2 weeks after TAVR (p≤0.01), and further significant improvement at the 1-month timepoint (p<0.01) for participants who were alive at 1 year. Sex, age category, and STS score category did not have a significant effect on the change in QOL (p>0.05). In the first 2 weeks, moderate (10–20 points) and large (>20 points) improvements were observed in 19.9% and 49.0% of the surviving patients, respectively; at 1-year, similar MCID were seen in 14.6% and 64.0% respectively.

Conclusion: This is the first study to report significant increase in QOL 2 weeks after TAVR, with sustained improvement during the first year in patients treated with the Vancouver TAVR Clinical Pathway with a goal of next-day discharge. Further studies are necessary to determine whether alternative TAVR clinical pathways yield similar findings.
Abstract: 4071

Early changes in quality of life after transcatheter aortic valve replacement: One-year results from the 3M TAVR Study

Authors: S. Lauck1, D.A. Wood1, S.J. Baron2, B. Borregaard3, H. Wijeysundera4, A. Asgar5, M. Hawkey6, P. Keegan7, M. Natarajan8, J.B. Masson9, K. Humphries10, R. Welsh11, J. Cairns12, J.G. Webb1, D. Cohen2, 1St. Paul’s Hospital - Vancouver - Canada, 2Saint Lukes Hospital - Kansas City - United States of America, 3Odense University Hospital - Odense - Denmark, 4Sunnybrook Health Sciences Centre - Toronto - Canada, 5Montreal Heart Institute - Montreal - Canada, 6Columbia University - New York - United States of America, 7Emory University Hospital - Atlanta - United States of America, 8McMaster University - Hamilton - Canada, 9University of Montreal - Montreal - Canada, 10ICVHealth - Vancouver - Canada, 11Mazankowski Alberta Heart Institute - Edmonton - Canada, 12University of British Columbia - Vancouver - Canada.

On behalf: 3M TAVR Investigators

Topic(s): Valvular Heart Disease: Intervention

Citation: European Heart Journal (2019) 40 (Supplement), 2451

Background: In patients with severe calcific aortic stenosis, transcatheter aortic valve replacement (TAVR) has been shown to significantly improve quality of life (QOL). However, changes in QOL at early follow-up (<1 month), and following next-day discharge are poorly understood.

Methods: A total of 411 patients at 13 centers were enrolled in the Multimodality, Multidisciplinary but Minimalist TAVR (3M TAVR) study in 2015–2017. QOL was evaluated using the Kansas City Cardiomyopathy Questionnaire (KCCQ-12) in participants with a baseline score and at least one score at 2 weeks, 30 days and 1 year. Study endpoints were change in (1) KCCQ-Overall Summary Score (KCCQ-OS) and (2) minimal clinically important differences (MCID). Mixed effects models were used to explore patterns of change from baseline, with fixed terms for time, status at 1-year and their interaction terms, and a random intercept for subject to account for within subject correlation. Descriptive statistics were used to report MCID.

Results: Data were available for 358 (87.1%) participants. 216 (60.3%) were men with a median age 84.0 and STS 5.0. There was significant increase in QOL 2 weeks after TAVR (p≤0.01), and further significant improvement at the 1-month timepoint (p<0.01) for participants who were alive at 1 year. Sex, age category, and STS score category did not have a significant effect on the change in QOL (p>0.05). In the first 2 weeks, moderate (10–20 points) and large (>20 points) improvements were observed in 19.9% and 49.0% of the surviving patients, respectively; at 1-year, similar MCID were seen in 14.6% and 64.0% respectively.

Conclusion: This is the first study to report significant increase in QOL 2 weeks after TAVR, with sustained improvement during the first year in patients treated with the Vancouver TAVR Clinical Pathway with a goal of next-day discharge. Further studies are necessary to determine whether alternative TAVR clinical pathways yield similar findings.

Figure 1

Figure 1