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MITRACLIP IN THE SETTING OF CARDIOGENIC SHOCK: BEYOND COAPT

James Deen

Cedars-Sinai Medical Center, jdeen@med.wayne.edu

Tohar Lev

Cedars-Sinai Medical Center, tohark@mail.tau.ac.il

Joseph Ebinger

Cedars-Sinai Medical Center, joseph.ebinger@csmc.edu

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Title:

MITRACLIP IN THE SETTING OF CARDIOGENIC SHOCK: BEYOND COAPT

Authors:

Deen, James, MS., Lev, Tohar, BS., Ebinger, Joseph, MD.

Purpose of the study:

To assess the short- and long-term outcomes of patients undergoing MitraClip for severe MR in the setting of cardiogenic shock.

Methods:

This was a retrospective observational cohort study of patients who underwent MitraClip at large academic institution between 2013 and 2019. Charts were reviewed to identify patients with pre-procedure cardiogenic shock if at least 1 of the following was present: 1) documentation of ongoing cardiogenic shock by a provider, 2) cardiac index <2.2 or 3) use of inotropes (Dobutamine, Milrinone or Dopamine) or vasopressors (Norepinephrine, Epinephrine or Vasopressin) within 24 hours of the procedure.

Results:

Out of 448 MitraClip patients, 29 (6.5%) were identified as having pre-procedure cardiogenic shock. Of those in cardiogenic shock prior to MitraClip, 26 (90%) were on inotropes and 16 (55%) were on vasopressors. This decreased to 22 (76%) and 15 (52%) post-procedure, respectively, though did not reach statistical significance ($p=0.80$). On pre-procedure echocardiography, MR severity was graded as severe or very severe in 21 (72.4%) of those with cardiogenic shock and 301 (71.8%) of those without shock. Of these patients, MR severity was reduced to moderate or less in 26 (89.7%) of those with shock and 400 (95.5%) of those without shock following the procedure ($p=0.80$).

Conclusion:

Use of MitralClip for the treatment of MR in the setting of cardiogenic shock is feasibility, with noted reductions in the severity of MR and inotropic requirements.

Key Words:

MitraClip, cardiogenic shock, mitral regurgitation, inotropes, vasopressors