

Diabetic complications worsen outcomes in patients undergoing percutaneous mitral valve repair



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BACKGROUND

- Percutaneous mitral valve repair using the Mitral Clip technique is an innovative procedure that is used in patients with significant mitral regurgitation and high surgical risk. The primary objective of this study is to evaluate the impact of having complicated diabetes on the mortality following mitral clip procedure.

METHODS

- Nationwide Readmission Database (NRD) 2014 data was queried for patients undergoing Mitral Clip procedure using the appropriate ICD 9 procedure codes. Patients were followed until discharge or death and classified according to the presence of diabetes mellitus. Means were calculated using student t-test, and percentages were calculated using the chi-square test. A multivariate binominal regression analysis was performed for factors associated with in-hospital mortality.

RESULTS

- A total of 1,695 patients undergoing Mitral Clip procedure in 2014 were included, of which 65 patients (3.8%) died during hospitalization. Mean age of patients was 74.7 years (SD was 13.4) with no significant difference in age among patients who died during hospitalization.
- Of all included patients, 52.8% were males, whereas 52.8% of patients who died during hospitalizations were females.
- We found the presence of diabetes with chronic complications to be an independent predictor of in-hospital mortality; OR= 6.3 (95% CI= 2.7-14.2).
- The odds of in-hospital mortality following Mitral Clip procedure were higher in female diabetic patients who have chronic complications; OR= 16 (95% CI= 3.65-70.24).

CONCLUSIONS

Our study shows that complicated diabetes increases the risk of in-hospital mortality in patients undergoing Mitral Clip procedure. Further studies should be conducted to assess the possible interventions that may lead to a reduction in in-hospital mortality of these patients