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# Does Concomitant CABG Influence the Outcomes of Post-Myocardial Infarction Ventricular Septal Defect Repair?

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**Title:** Does Concomitant CABG Influence the Outcomes of Post-Myocardial Infarction  
Ventricular Septal Defect Repair?

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**Introduction:** Ventricular septal defect (VSD) following myocardial infarction (MI) is a relatively infrequent complication with high mortality. Over time, understanding of the pathology and its management has resulted in improved outcomes; however, controversies remain.

**Objective:** We sought to investigate the effect of concomitant coronary artery bypass graft (CABG) on outcomes following post-MI VSD repair.

**Methods:** Electronic search was performed to identify all relevant studies published from 2000 to 2018. After assessment for inclusion and exclusion criteria, 66 studies were selected for the analysis. Data were extracted and pooled for systematic review and meta-analysis.

**Results:** Average age was 68.7 years (95% CI 67.3-70.1) with 57% (95% CI 54-60) males. Coronary angiogram was available preoperatively in 94% (95% CI 92-96) of patients. Single-vessel disease was most common (47%, 95% CI 42-52) with left anterior descending coronary artery the most commonly involved vessel (55%, 95% CI 46-63). Concomitant CABG was performed in 52% (95% CI 46-57) of patients. Of these, infarcted territory was revascularized in

54% (95% CI 23-82). No significant survival difference was observed between those who had concomitant CABG versus those without CABG at 30 days (65%, 95% CI 58-72) vs (60%, 95% CI 47-72), 1 year (59%, 95% CI 50-68) vs (51%, 95% CI 41-61), and 5 years (46%, 95% CI 38-54) vs (39%, 95% CI 27-52) respectively.

**Discussion:** Overall, concomitant CABG did not have a significant effect on survival following VSD repair, therefore, decision on revascularization should be weighed against the risks associated with prolonged cardiopulmonary bypass.