

The Risk of Cardiac Complications Following Noncardiac Surgery in Patients with Drug Eluting Stents Implanted at Least Six Months Prior to Surgery

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BACKGROUND: Non cardiac perioperative management of patients who recently underwent drug-eluting coronary stents (DESs) implantation may be challenging due to potential risk of stent thrombosis. These stents may inhibit re-endothelization of the treated vessel, making it vulnerable to platelet-mediated thrombosis.

OBJECTIVES: Given the anecdotal reports and case series suggesting that DESs may be still vulnerable to coronary thrombosis after six months, we sought to assess this risk.

METHODS: Linking the Rabin Medical Center interventional cardiology database with its non-cardiac surgical database, we have identified 78 patients who underwent DES placement and subsequently [after six months] had noncardiac surgery [15-vascular, 37- abdominal and genitourinary and 26-others, excluding ophthalmic surgery]. Outcome measures included 30-day rate of postoperative myocardial infarction (MI), DES-related thrombosis, and cardiac mortality

RESULTS: Major adverse cardiac events [death and non-fatal MI] occurred in 6 (7.7%) patients including 2 cardiac deaths (2.6%), 4 (5.1%) non-fatal myocardial infarctions (MIs). Two patients (2.6%) sustained stent thrombosis [one patient had 'definite' and one 'probable' stent thrombosis]. All MIs [including stent thrombosis] occurred in the vascular and abdominal surgery group. Two of the MIs events occurred while the patients were on dual antiplatelet agents

CONCLUSIONS: Non cardiac surgery after six months of DES deployment is associated with considerable risk of non-fatal MI and cardiac death. These cardiac complications remain a matter of diagnostic and therapeutic challenge and concern.