Major Surgery after Recent Percutaneous Coronary Intervention

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Figure 1. Incidence of perioperative complications in studies with different median times between percutaneous transluminal coronary angioplasty plus stenting and noncardiac surgery. *P* < 0.05 MI = myocardial infarction.

Table 1. Coronary Stent Thrombosis and Non-Surgical"
On the basis of the coronary angiogram, a patient was eligible for the study if one or more major coronary arteries had a stenosis of at least 70 percent and were suitable for revascularization. Local investigators decided which revascularization procedure to use, either percutaneous coronary intervention or CABG. Although percutaneous coronary intervention and CABG are considered equivalent before major noncardiac operations,13 the potential long-term advantage of CABG among patients with diabetes and multivessel disease was recognized.14 Anatomical exclusion criteria were a stenosis of the left main coronary artery of at least 90 percent, a left ventricular ejection fraction of less than 20 percent, and severe aortic stenosis.
To eliminate premature discontinuation of thienopyridine therapy, this advisory group gives the following recommendations.

1. Before implantation of a stent, the physician should discuss the need for dual antiplatelet therapy. In patients not expected to comply with 12 months of thienopyridine therapy, whether for economic or other reasons, strong consideration should be given to avoiding a DES.

2. In patients who are undergoing preparation for percutaneous coronary intervention and are likely to require invasive or surgical procedures within the next 12 months, consideration should be given to implantation of a bare-metal stent or performance of balloon angioplasty with provisional stent implantation instead of the routine use of a DES.

3. A greater effort by healthcare professionals must be made before patient discharge to ensure patients are properly and thoroughly educated about the reasons they are prescribed thienopyridines and the significant risks associated with prematurely discontinuing such therapy.

4. Patients should be specifically instructed before hospital discharge to contact their treating cardiologist before stopping any antiplatelet therapy, even if instructed to stop such therapy by another healthcare provider.

5. Healthcare providers who perform invasive or surgical procedures and are concerned about peri-procedural and postprocedural bleeding must be made aware of the potentially catastrophic risks of premature discontinuation of thienopyridine therapy. Such professionals who perform these procedures should contact the patient’s cardiologist if issues regarding the patient’s antiplatelet therapy are unclear, to discuss optimal patient management strategy.

6. Elective procedures for which there is significant risk of perioperative or postoperative bleeding should be deferred until patients have completed an appropriate course of thienopyridine therapy (12 months after DES implantation if they are not at high risk of bleeding and a minimum of 1 month for bare-metal stent implantation).

7. For patients treated with DES who are to undergo subsequent procedures that mandate discontinuation of thienopyridine therapy, aspirin should be continued if at all possible and the thienopyridine restarted as soon as possible after the procedure because of concerns about late-stent thrombosis.

8. The healthcare industry, insurers, the US Congress, and the pharmaceutical industry should ensure that issues such as drug cost do not cause patients to prematurely discontinue thienopyridine therapy and to thus incur catastrophic cardiovascular complications.
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