# Heart Surgery Forum®

#### KEY REFERENCES

# Antiplatelet Therapy after Coronary Artery Bypass

The number of patients having coronary artery bypass grafting (CABG) has grown significantly; it has been estimated that more than 500,000 patients per year undergo CABG within the United States alone. Coronary artery bypass procedures date back to the 1950s, with CABG becoming the accepted method of revascularization for coronary artery disease in the 1970s. Today, with all of the improvements and advances made in surgical techniques, patients often have excellent chances of survival after surgery. However, even with the many advances that medicine has made, patient management after coronary artery bypass procedures is far from perfect. Fifty percent of patients who have had coronary grafts with the saphenous vein as the chosen conduit for repair suffer from graft closure at 10 years after revascularization. This incidence can be improved by using the internal mammary artery as the conduit. This vessel is not as greatly affected by atherosclerosis, and its use results in 90% patency rates at 10 years. Medical management after CABG also greatly affects the patient's odds of survival. It is well known that platelets play a key role in thrombosis and that antiplatelet therapy can be used to assist in combating thrombosis. However, it is not well known if antiplatelet therapy after CABG helps to prevent graft thrombosis. Platelets are key mediators in both thrombosis and inflammation. Reperfusion of the myocardium is associated with a large-scale inflammatory response. Is the benefit of antiplatelet use secondary to its antithrombotic or to its anti-inflammatory effect? Perhaps the synergistic effect increases the rate of graft patency. Although some surgeons fear starting antiplatelet therapy soon after surgery because of the risk of thrombocytopenia, such therapy has been shown to reduce the rate of graft closure. This finding, however, does not necessarily mean that antiplatelet therapy reduces the mortality rate. Much has been studied about the use of antiplatelet therapy after CABG, and much more still needs to be studied. This compilation provides references to useful articles to help the reader make a decision about antiplatelet therapy after CABG.

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