Dual Antiplatelet Therapy Plus Oral Anticoagulation: How Does Hemorrhagic Risk Impact Stent Selection?

We read with great interest the article by Rogacka et al. (1). We applaud the authors' attempt to clarify the time course for hemorrhagic risk to these patients. Rogacka et al. (1) showed that most hemorrhagic events in patients on triple therapy (TT) (dual antiplatelet [DAP] plus oral anticoagulation [AC]) occurred within the first month of treatment and that half of these patients died. These hemorrhagic complications are common, real-world issues that impact the type of stents physicians select. Therefore, proper interpretation of these data (to aid decision making in everyday practice) is crucial. Unfortunately, the authors did not address the risk of recurrent bleeding during the 21-month follow-up period in patients who suffered a major bleeding event in the first month of TT. For example, in patients with nonvariceal upper gastrointestinal bleeds, rebleeding can be as high as 20% (2). It is unclear whether this study censored patients after the first bleeding event or if their TT was altered. Because current American College of Cardiology/American Heart Association recommendations now call for a minimum of 12 months DAP therapy after drug-eluting stent (DES) implantation, if DES are used in patients requiring AC, this then commits such patients to 12 months of TT (3). As Rogacka et al. (1) reported, most bleeding occurs in the first month of TT, so the likelihood for recurrent hemorrhagic complications in the DES-treated patient on AC is probably significant over the subsequent 11 months unless the therapy is reduced. Certainly, early cessation of DAP therapy after DES implantation should be avoided because it predisposes to stent thrombosis, thus leading to a clinical quandary.

We believe that this article may lead interventionalists to come to one of two very disparate conclusions in an attempt to determine stent choice in these patients: 1) The DES are more reasonable in such patients because the bleeding events occurred in the first month and therefore no difference in bleeding between DES-treated or bare-metal stent (BMS)-treated patients was found. Therefore, reducing target lesion revascularization becomes the most important issue. 2) The BMS are more reasonable in such patients because the TT predisposing to bleeding complications will be minimized to only 1 month, thereby reducing the recurrent bleeding risk.

We think that conclusion 1 would be erroneous given the lack of data regarding recurrent bleeding events, alteration of TT, and stent thrombosis. At our institution, we prefer BMS in patients who require long-term oral AC. Although their risk of bleeding during the first month may be no different if treated with DES, their risk of bleeding over the next 11 months should be less because we routinely stop clopidogrel 1 month after BMS implantation and treat with 81 mg aspirin daily to reduce bleeding risk. When DES are used, the option to cease clopidogrel after the first month or after an early bleeding event may be dangerous and may place patients at risk for stent thrombosis. Therefore, we feel BMS should be the default stent type in patients requiring chronic oral AC.

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doi:10.1016/j.jcin.2008.03.017

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Reply

We thank Drs. Ruiz-Nodar, Marìn, Lip, Giuliano, and Lotfi for their interest in our work (1). Our study was conceived to approach the growing problem of patients necessitating chronic anticoagulation who undergo percutaneous coronary intervention (PCI) procedures with stent implantation. We retrospectively analyzed our computer database, retrieved the data of the patients, and contacted the patients. Of course, we agree with Dr. Ruiz-Nodar and colleagues that the major limitation of the study is the small number of the patients (n = 127) analyzed and its retrospective character. Because of the heterogeneity of the patients on chronic anticoagulation, the elevated risk of thromboembolic events for the majority of pathologies that require this type of treatment, and the well-documented risk of stent thrombosis if a dual antiplatelet regiment is not observed, the randomization may be particularly difficult, if not impossible.

We read carefully the study of Ruiz-Nodar et al. (2), which is the largest published study examining the problem of the antiplatelet and anticoagulation regimen in patients with atrial fibrillation (AF). The differences in the outcome between this article and our study (major adverse cardiovascular events 32.3% vs. 23.6% and major bleeding 12.3% vs. 3.7%, respectively) probably derive from the fact that we analyzed various subgroups of patients who need chronic anticoagulation (AF, valve prostheses, left