NEW AVENUES

Reply to the Editor:

We enjoyed reading Beller and colleagues’ response1 to our editorial entitled “Nonvitamin K oral anticoagulants in cardiac surgery: What cardiothoracic surgeons need to know 2.0.”2 We in particular look forward to reading their forthcoming case series on reversal of direct-acting oral anticoagulants (DOACs) with andexanet alfa, and the finding on heparin resistance in this setting. More important than heparin resistance, which can be a nuisance but not life-threatening, is their suggestion that andexanet alfa, albeit given with prothrombin complex concentrates, could lead to thrombosis when on cardiopulmonary bypass. This is a very important area of inquiry and we look forward to reading more on this in future publications. We are not certain that use of bivalirudin represents a prudent alternative to heparin in patients on DOACs that have not been reversed before cardiac surgery. While use of direct thrombin inhibitors are mandatory in cases of acute heparin-induced thrombocytopenia, the lack of reversal agent for bivalirudin might lead to increased bleeding, especially when bivalirudin is combined with a DOAC. Although some studies (such as EVOLUTION-ON [The Evaluation of Patients During Coronary Artery Bypass Graft Operation: Linking Utilization of Bivalirudin to Improved Outcomes and New Anticoagulant Strategies]3) suggest no increased bleeding with bivalirudin, others (such as CHOOSE-ON [Coronary Artery Bypass Grafting Heparin-Induced Thrombocytopenia Thrombosis Syndrome On- and Off-Pump Safety and Efficacy]4) suggest quite high rates of transfusion with bivalirudin, and there are no studies that combine bivalirudin administration with DOACs. What has become clear is that DOAC use is on a significant rise, and cardiac surgeons will be faced with the prospect of emergency cases concerning patients on DOACs, and that more data are urgently needed to better guide practice.

Stephen D. Waterford, MD
Niv Ad, MD
Division of Cardiac Surgery
White Oak Medical Center
Adventist HealthCare
University of Maryland
Takoma Park, Md

References