Perioperative bleeding management in cardiac surgery, the multidisciplinary approach

Triantafillopouloy Konstantina1, 2 Bakas A1, 2 Minadakis G2, Veresoglou EI2, Arikas S1, 2 and Tsakiridis K1, 2

1St. Luke's Hospital, Thessaloniki, Greece
2Blue Cross Hospital, Thessaloniki, Greece

Introduction: Perioperative bleeding is common among patients in cardiac surgery. Major bleeding, transfusion and anemia have been characterized as the deadly triad of cardiac surgery. Patient blood management (PBM) in cardiac surgery contributes to the maintenance of perioperative haemostasis and the minimization of bleeding, which reduce blood transfusion requirements. PBM in cardiac surgery comprises of an interaction not only between the cardiothoracic surgeon, the anesthesiologist and the clinical perfusionist, but furthermore the cardiologist and hematologist.

Theoretical Orientation: This multidisciplinary approach following evidence-based guidelines can be the only accepted way to prevent any adverse outcomes. The methodology to identify and amend all factors related to increased risk of bleeding, transfusion and reoperation includes preoperative assessment, intraoperative techniques and postoperative management by all affiliated specialties. Advanced age, preoperative anemia, antiplatelet therapy and platelet dysfunction, use of NOACs, congenital and acquired coagulopathies, non-elective cardiac surgery, complex procedures and redo cardiac surgery, additional to individual comorbidities are only few of the risk factors. Risk scores, advanced surgical techniques, minimal procedures and PBM algorithms need to be addressed for the patient's benefit.

Conclusion: Perioperative bleeding management in cardiac surgery comprises a multidisciplinary and multifactorial approach and consists of a sequence of separate strategies and interventions. It is a constant interaction between the cardiac surgeon, anesthesiologist, perfusionist, cardiologist, hematologist and intensivists, in addition to evidence-based guidelines, recommendations, algorithms, multicentric trials and ongoing research.

Biography
Konstantina Triantafillopoulou was born in Northern Greece in 1978. She graduated from Medical School of Democritus University of Thrace in 2004, and received many scholarships from State and Private Foundations. Fulfilled the specialty in Cardiothoracic Surgery in 2015 in AHEPA University Hospital Thessaloniki, Greece and started a PhD Research studying “The effect of Minimal Extracorporeal Circulation in coagulation during adult cardiac operations, with conventional and viscoelastic tests”. She shares a high interest in Perioperative Bleeding Management in Cardiac Surgery, attending many PBM seminars organized by Danube University of Krems, University of Zurich (Maastricht-Netherlands, Vienna and Hainburg-Austria) and Weill Cornel Medicine (Doha Qatar). She is the member of Hellenic Society of Thoracic and Cardiovascular Surgeons (HSTCS), ERC as an Instructor for Advanced Life Support, Medical Association of Thessaloniki, International Society on Thrombosis and Haemostasis. Since 2015 She is in private medical practice in Saint Luke's Hospital, Blue Cross Hospital, Interbalkan Medical Center, Thessaloniki Greece in a variety of cardiac and thoracic cases.

tina30fillopoulou@gmail.com