بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِيمِ

Personalized Anesthesia and Perioperative Coagulation Management: a Main Step Forward

Perioperative bleeding management is one of the greatest challenges for anesthesiologists. Not too many years ago, there were a few available options for anesthesiologists on table; both regarding diagnosis and replacement therapies. However, time has changed and many up-to-date approaches have been introduced during the last decades.

During the perioperative period, the most common etiology for nonsurgical bleeding is underlying coagulation disorder which could be due to the effects of the procedure or due to an underlying disorder which often undiagnosed or insufficiently assessed. However, as all of the underlying disorders are not always well-known and some of them remain undetected, there is always room for further clinical developments and research work. Besides, a unique strategy for all patients to optimize the coagulation profile would not be always suitable; different suits should be tailored for each person. This is why choosing a personalized approach in perioperative hematologic optimization and coagulation management remains a logical, suitable and recommended approach.

The strategic move towards component therapy and patient blood management has significantly improved the clinical outcome (1, 2).

However, this clinical paradigm shift mandated coordinated movement in all aspects and could not be achieved without equivalent improvement in coagulation status monitoring; especially with the help of such monitoring devices as Rotational thromboelastometry (ROTEM) and thromboelastography (TEG) which could provide point of care coagulation status data though more sophisticated research is needed to define the ultimate role of these monitors on patient outcome (3-7).

With the overwhelming trend of personalized medicine and its role on perioperative care, coagulation management would be one of the highly privileged aspects with potential improvements in clinical outcome (8, 9). Both rare and common congenital bleeding disorders could significantly affect the perioperative care and the role of point of care tests is much more highlighted in these patients.

In this issue of the Journal, Dorgalaleh et al, have presented a study considering prevalence of rare and common bleeding disorders in Kurdistan Province of Iran with important results probably arising from ethnic or geographic effects (10). Both ethnic and geographic effects would be among the potential derminants of clinical practice. Studies like the latter one stress more on point of care testing for coagulation management and perioperative patient blood management which is best matched as a branch of personalized medicine.

Today, perioperative medicine is improved due to personalized medicine; perioperative coagulation management is one of the prominent examples of this paradigm shift; a continuous trend that would be well extended and obeyed with broader aspects during the near future years.

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Ali Dabbagh, MD (iD)

Professor of Cardiac Anesthesia
Anesthesiology Research Center,
Shahid Beheshti University of Medical Sciences,
Tehran,
Iran

E mail: alidabbagh@yahoo.com