Cerebral Monitoring to Optimize Outcomes after Cardiac Surgery

Synopsis

This review addresses the background and rationale for a comprehensive monitoring strategy aimed at optimizing cerebral (and other) outcomes after cardiac surgery.

This review focuses on the various cerebral monitoring options that can be used in cardiac surgery to improve perioperative outcomes.

These include:
- Hemodynamic monitoring
- Temperature monitoring
- Transcranial Doppler
- Bispectral index
- Multichannel electroencephalography
- Cerebral oximetry

Summary

This paper presents a cursory review of various monitoring modalities commonly used during cardiac surgery. It concludes that there is a general paucity of evidence-based data guiding the choices of whom to monitor, with what, when and for how long. It finishes by advocating an integrated cerebral monitoring strategy utilizing hemodynamic, temperature, BIS, and NIRS in order to optimize cerebral outcome in cardiac surgery.

Citation