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授課主題

Brain Health: A Concern for Cardiothoracic Anesthesia

摘要

The brain is uniquely vulnerable during cardiac surgery due to risks from cardiopulmonary bypass, embolic events, and hemodynamic instability. Adopting a comprehensive strategy for brain protection, guided by advanced monitoring, is therefore important.

Our focus is on how targeted monitoring can improve neurological outcomes. Modern techniques allow us to interpret complex brain signals in real time, such as EEG, cerebral oximetry (NIRS) and Transcranial Doppler (TCD). By different analysis algorithm, we can better preventing peri-operative awareness, predict the risk of postoperative neurocognitive dysfunction (PND), and detect subtle signs of ischemia or embolism before lasting harm occurs. Ultimately, the integrated goal of these advanced monitoring strategies is to prevent any form of neurological decline.

This intraoperative vigilance, however, is part of a broader, evolving strategy. Achieving true neuroprotection requires a holistic approach that extends across the entire operation, including comprehensive pre-operative assessments and optimized post-operative care.