

A Novel and Exceptional Approach to Acute Ischemic Stroke after Cardiac Surgery

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Postoperative permanent stroke continue to be a devastating complication after open heart surgery with a reported incidence ranging from 1.3% to 4.3%. Although the causes of neurologic events after surgery are multifactorial, embolic phenomena are a major factor (62.1%).

Regardless of mechanism, strokes predominantly occurred within the first postoperative day (24 hours in 22.8% and after 24 hours in 77.2%).

Intravenous administration of rtPA (tissue plasminogen activator) is the only FDA-approved medical therapy (1996) for treatment of patients with acute ischemic stroke within 3 hours of stroke onset. However major surgery within previous 14 days constitutes a relative exclusion criterion for Fibrinolytic Therapy.

We have treated successfully 3 patients that developed from early ischemic stroke after CABG by Intravenous administration of rtPA with impressive clinical improvement and without any complication.

Being in a center of primary stroke care (PSCs). We have adopted a novel strategy and protocol for emergency evaluation and treatment of patients with suspected stroke after cardiac surgery that is the same as the 2010 American Heart Association Guidelines except the fact that our patients have a relative exclusion criterion for fibrinolytic therapy and the "time to treatment" is usually shorter than 3 hours.