

### Prevalence and prevention of perioperative vascular occlusive events

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As the world population increases and ages, the surgical population at risk of morbidity and mortality increases exponentially. As surgery represents a major inflammatory and hemodynamic physiologic stress, it is no surprise that a major source of perioperative morbidity is vascular occlusion in the myocardial and cerebral circulations. Understanding this prevalence with attention to its prevention will be key to optimization of patient outcomes. Numerous published risk indices have probably underestimated the actual magnitude of this problem. Preventive manoeuvres that have been considered and proven beneficial through large population-based investigations remain few. Small trials of numerous interventions have led to confusing results that may be counterproductive. The latter include trials of alternative anesthesia techniques (e.g. epidural), catecholamine-modifying therapy (e.g. beta blockade), and antiplatelet therapy (aspirin). The recent publication of a large trial of preoperative beta blockade in fact found an increase in mortality with an intervention that had intuitively been thought beneficial, and suspected to be beneficial in small biased trials. Consequently, the imperative of large definitive trials was proven. Since publication of this large trial that disproved the mythology of empiric preoperative beta blockade, further investigation has been directed at antiplatelet agents and catecholamine-modifying therapy.

### Biography

Michael Jacka completed his MD at Queen's University in Kingston Ontario, and MSc at the University of Toronto. He is fellowship trained in anaesthesiology and critical care. His major research interest is in the prevention and treatment of myocardial infarction among the critically ill. His practice is at the University of Alberta Hospital, Edmonton.