

**Aggressive Surgical Interventions for Severe Stroke:
Impact on quality of Life and Caregiver Outcomes**

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Background: Hemicraniectomy, clot evacuation, and aneurysm interventions are considered aggressive surgical therapeutic options for treatment of massive cerebral artery infarctions (MCA), lobar hemorrhage, and severe subarachnoid hemorrhage (SAH) respectively. Although these procedures are saving lives, little is actually known about the impact on other outcomes besides functional status, including key outcomes such as quality of life, mood and cognitive changes, the impact on caregiver and families' burden and social support, and long-term functional status in stroke survivors.

Objectives: The primary objective of this proposed research is to examine, describe, and explore patient-and caregiver-related outcomes from a cohort of patients who have undergone aggressive life-saving interventions following massive cerebral infarction, lobar hemorrhage, or severe subarachnoid hemorrhage.

Methodological Approach: A mixed methodology design will be used in this descriptive, exploratory analysis of patients with stroke treated with aggressive surgical interventions between. In the quantitative phase, a retrospective descriptive design will be used. In the qualitative phase stroke survivors and caregivers will be interviewed in depth about the clinical, personal, and social factors related to the experience of living with stroke following aggressive life-saving interventions.

Expected outcomes: The overall aim of this project is gain a better understanding of personal and social consequences of surviving aggressive surgical intervention for malignant MCA infarction, lobar hemorrhage, and poor-grade subarachnoid hemorrhage. The long-term aim is to inform health care professionals in their practice, and to inform the development of health system interventions directed at optimizing well-being for these stroke survivors and their caregivers.