

Treatment Strategies of Complex Intracranial Aneurysm

Thesis Submitted For **M.D Degree**

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LIST OF ABBREVIATIONS

3D	: 3 dimensions
ACA	: Anterior cerebral artery.
A-chrd	: Anterior choroidal artery.
A-com	: Anterior communicating artery.
AICA	: Anterior-inferior cerebellar artery.
BA	: Basilar artery.
BACE	: Balloon-assisted coil embolization.
BOT	: Balloon occlusion test.
CBC	: Complete blood count.
CBF	: Cerebral blood flow.
CFDA	: Computational flow dynamics analysis.
CN IX	: Glossopharyngeal nerve.
CN X	: Vagus nerve.
CN XI	: Spinal accessory nerve.
CN XII	: Hypoglossal nerve.
CP angle	: Cerebello-pontine angle.
CSF	: Cerebrospinal fluid.
CT	: Computed tomography.
CTA	: CT angiography.
DIVA	: Dual image video angiography.
DMSO	: Dimethyl sulfoxide.
DS	: Digital subtraction.
DSA	: Digital subtraction angiography.
ECA	: External carotid artery.
EC-IC	: Extracranial–intracranial.
FDD	: Flow diverting devices.

GCS	: Glasgow coma score.
GOS	: Glasgow outcome score.
H&H	: Hunt and Hess.
ICA	: Internal carotid artery.
ICG-VA	: Indocyanine green video angiography.
INR	: International normalization ratio.
IPS	: Infra-PICA segment.
MCA	: Middle cerebral artery.
MRA	: Magnetic resonance arteriography.
MRI	: Magnetic resonance imaging.
mRS	: Modified Rankin's scoring systems.
OA-PICA	: Occipital artery- Posterior-inferior cerebellar artery.
Ophth.	: Ophthalmic.
PCA	: Posterior cerebral arteries.
P-com	: Posterior communicating artery.
PED	: Pipeline embolization device.
PGLA	: Polyglycolic-polylactic acid.
PICA	: Posterior-inferior cerebellar artery.
PS	: PICA segment.
PT	: Prothrombin time.
PVC	: Polyvinyl chloride.
PVO	: Parent vessel occlusion.
PVR	: Parent vessel reconstruction.
SACE	: Stent-assisted coil embolization.
SAH	: Subarachnoid hemorrhage.
SCA	: Superior cerebellar artery.
SPS	: Supra-PICA segment.
STA-MCA	: Superficial temporal artery-Middle cerebral artery.

TIAs	: Transient ischemic attacks.
VA	: Vertebral artery.
VLA	: Very large aneurysms.
WFNS	: World Federation of Neurological Surgeons.

INTRODUCTION

Treatment of patients with complex aneurysms is amongst the most challenging for neurosurgeons and endovascular interventionalists. Proper clinical decision-making must balance the risks of conservative management against potential morbidity and mortality associated with any proposed intervention. Therefore, thorough knowledge of the natural clinical course of the lesion and an honest assessment of personal complication rates for the proposed intervention are of utmost importance.⁽¹⁾

For complex aneurysms of the brain, effective interventions include surgery and endovascular technique. Some patients having complex aneurysm may require the use of more than one treatment modality. The term multimodality treatment has been used increasingly over the past two decades and refers to a variety of clinical scenarios and treatment algorithms of different complexities.⁽²⁾