Temporary Clipping in Aneurysm Surgery
When it’s indicated

Prof. Dr. Leónidas M. Quintana M.D.
Chief of Neurosurgery Service – Van Buren Hospital
Cathedra of Neurosurgery
Valparaiso University School of Medicine, Chile
TEMPORARY CLIPPING UNDER BRAIN PROTECTION FOR:

1. - TO AVOID (AND TO TREAT) PREMATURE RUPTURE
2. -”REMODELATION” OF THE NECK AND DOME
3. - DECREASE TENSION INSIDE DOME AND NECK
4. - FRAGILE NECK - TO AVOID RUPTURE
5. - TO AVOID CLIP SLIDING
6. - TO AVOID STENOSIS OF MAIN ARTERY
7. - FACILITATE NEIGHBOURING VISUALIZATION
8. - BIG OR GIANT ANEURYSMS
CEREBRAL PROTECTION

VALPARAÍSO COCKTAIL

PROPOFOL 10 mg/Kg./hr.

MANITOL 1gr/Kg/doses e/ 100 min

NIMODIPINE 2 mg/ hr. continous I.V.

METABOLIC NEEDS

COLLATERAL CBF
1- TO AVOID (AND TREAT) PREMATURE RUPTURE

IC ARTERY BIFURCATION
(BILOBED-WIDE NECK) ANEURYSM
2-"REMODELATION" OF NECK AND DOME

An right A1-A2 Big Thrombectomy Remodeling artery and neck with microcoagulation and fenestrated clips

A2 "Like" fusiform
3-To decrease tension inside the dome and neck

BIG ANEURYSM
MIDDLE CEREBRAL ARTERY

Wide aneurysm neck;
Temporary clipping
Neck walls become relaxed
Using the same clip, now the clip is applied smoothly
4-TO AVOID CLIP SLIDING

CAROTID – OPHTALMIC ANEURYSM
5-TO AVOID STENOSIS OF THE MAIN ARTERY

PARACLINOIDAL GIANT CEREBRAL ANEURYSM
6-TO FACILITATE NEIGHBOURING VISUALIZATION

A Com Aneurysm
Anterior direction - Big
CEREBRAL PROTECTION DURING TEMPORARY CLIPPING IN SURGERY OF GIANT ANEURYSMS

ADVANTAGES

• DECREASE TENSION INSIDE WALLS OF DOME
• AVOID PREMATURE RUPTURE
• TO OPEN THE DOME AND TAKE OFF FIBRIN CLOTS
• FACILITATE DISECTION OF EFERENT ARTERIES AND OTHER STRUCTURES
• TO IMPROVE VISUALIZATION
• TO TREAT A WIDE NECK
7-BIG OR GIANT ANEURYSMS

BIFURCATION MCA ANEURYSM – BIG, WITH THICK WALLS AND TENSE NECK
THANK YOU VERY MUCH !!!

Prof. Dr. Leónidas M. Quintana M.D.
Chief of Neurosurgery Service – Van Buren Hospital
Cathedra of Neurosurgery
Valparaíso University School of Medicine, Chile