

ON-LINE APPENDIX: SUPPLEMENTAL METHODS

All of the endovascular procedures were done under general endotracheal anesthesia with the anesthesia team physically present in the angiography suite throughout the procedure. Patients were administered IV heparin during the procedure to achieve and maintain an activated clotting time of 250–300 seconds. The activated clotting time was checked at the end of the procedure and usually the sheath was removed and local pressure applied. In patients administered abciximab (Reo-Pro) for intraoperative complications, the access site was usually closed with a closure device. Occasionally, the sheath was removed after a few hours in patients in whom reversal was avoided (usually related to aneurysm complexity). These patients had been “a priori” assigned to the “ICU group” because of aneurysm complexity. Patients received a complete neurologic examination by one of the treating staff physicians before leaving the angiography suite (brief observation in the angiography suite).

After extubation, patients were observed in the angiography suite until they were awake enough from anesthesia to have a complete neurologic examination. Patients admitted to a monitored bed (either Progressive Care Unit [PCU] or ICU) were transferred directly to a dedicated neuro-critical care unit

for intensive monitoring after extubation and brief observation in the angiography suite. Conversely, patients admitted to the neurosurgical/neurological floor were transported (after extubation and brief observation in the angiography suite) to the Postoperative Recovery Unit (PACU) before being transferred to the neurological/neurosurgical floor. Patients transferred from the angiography suite to the PACU before floor admission were observed and monitored in the PACU for 1–2 hours.

Supplemental routine neurochecks, in addition to the ones performed by the PACU, ICU, and floor nurses, were done by an RN specifically dedicated to the neurovascular team. These supplemental neurochecks were done in the PACU and then shortly after arrival to the ward, for patients admitted to a regular ward and in the ICU for those patients admitted to the critical care unit. Institutional protocols for monitoring in the ICU generally included a 2 patient-to-1 nurse ratio, every 2-hour vital sign and neurologic exam, and telemetric monitoring. Progressive care generally included a 2 patient-to-1 nurse ratio, every 4-hour vital sign and neurologic exam, and telemetry. Floor level care included a 3 patient-to-1 nurse ratio, every 6-hour vital sign and neurologic exam, and no telemetry.

On-line Table 1: Patient and Procedure Demographics

| | | |
|----------------------------|----------|-----------------|
| Aneurysm treatments | | 200 |
| Individual patients | | 178 |
| Age, years \pm SD | | 55.5 \pm 12.5 |
| Female sex, <i>n</i> (%) | | 158 (79) |
| Presentation, <i>n</i> (%) | | |
| SAH ^a | 36 (18) | |
| Symptomatic | 54 (27) | |
| Asymptomatic | 110 (55) | |
| Aneurysm re-treatments | | 11 |

^a Unruptured aneurysm discovered after SAH from a different aneurysm.

On-line Table 2: Aneurysm and Procedure-Related Data

| | | |
|--------------------|---|------------|
| Anterior location | Internal cerebral | 94 (47%) |
| | Posterior communicating | 20 (10%) |
| | Anterior choroidal | 5 (2.5%) |
| | Middle cerebral | 16 (8%) |
| | Anterior communicating | 21 (10.5%) |
| | Anterior cerebral | 2 (1%) |
| Posterior location | Pericallosal | 3 (1.5%) |
| | Vertebral | 2 (1%) |
| | PICA | 6 (3%) |
| | Basilar | 26 (13%) |
| | Superior cerebellar | 1 (0.5%) |
| | Posterior cerebral | 4 (2%) |
| Size | Small <10 mm (%) | 136 (68%) |
| | Large 10–25 mm (%) | 50 (25%) |
| | Giant >25 mm (%) | 14 (7%) |
| Treatment | Coil embolization | 124 (62%) |
| | Pipeline Embolization Device embolization | 51 (25.5%) |
| | Balloon-assisted coiling | 7 (3.5%) |
| | Stent-assisted coiling | 7 (3.5%) |
| | Pipeline Embolization Device–assisted coiling | 1 (0.5%) |
| | ICA sacrifice | 2 (1%) |
| | Stent | 2 (1%) |
| | Attempted coil | 6 (3%) |

On-line Table 3: Perioperative, Early (24 Hours), and Late (30 Days) Complications Among All Procedures

| Timing of Presentation of Complication | Complication Type | <i>n</i> (% of 200) | Morbidity (<i>n</i>) |
|--|---------------------------|---------------------|------------------------|
| Intraoperative | Thromboembolic | 6 (3.0%) | 0 |
| | Hemorrhagic | 4 (2.0%) | 1 |
| | Access site | 4 (2.0%) | 0 |
| | Other (contrast reaction) | 1 (0.5%) | 0 |
| 24-Hour complications | Thromboembolic | 1 (0.5%) | 0 |
| | Other (chest pain) | 1 (0.5%) | 0 |
| 30-Day complications | Thromboembolic | 1 (0.5%) | 1 |