

## 1.1 HAEMORRHAGIC – Aneurysms

### 027/263 EVALUATION OF RELATIVE RISK OF RUPTURE OF INTRACRANIAL ANEURYSMS BY LOCATION: THE CASE OF OPHTHALMIC ANEURYSMS

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**Introduction** Aneurysm location is a key element in predicting an intracranial aneurysm's rupture risk. Ophthalmic aneurysms, superior hypophyseal/carotid cave aneurysms, internal carotid artery termination aneurysms are grouped together under the 'internal carotid artery aneurysm' label in studies evaluating the rupture risk of unruptured intracranial aneurysms. A shared experience suggests that ophthalmic aneurysms are under-represented in ruptured intracranial aneurysms.

**Aim of Study** The purpose of this study is to evaluate specifically the relative risk of rupture of ophthalmic aneurysms.

**Methods** This multicentre study compared the frequency of ophthalmic aneurysms in a prospective cohort of ruptured intracranial aneurysms admitted in 13 neuroradiology centres between January 2021 and March 2021 and the frequency of ophthalmic aneurysms in a retrospective cohort of unruptured intracranial aneurysms who underwent cerebral angiography at the same neuroradiology centres during the same time period.

**Results** Six hundred and four intracranial aneurysms were included in this study (355 unruptured and 249 ruptured; median age 58-year-old, IQR [49; 65]; female 386/604 [63.9%]). Median aneurysm size was 5.4 mm (5.0 mm for unruptured intracranial aneurysms; 6.0 mm for ruptured intracranial aneurysms, p-value < 0.0001). Aneurysm shape was irregular for 37% unruptured aneurysms and 73% ruptured aneurysms (p-value < 0.0001).

Ophthalmic aneurysms frequency was 15.2% of unruptured intracranial aneurysms (2nd most frequent aneurysm location) and 1.2% of ruptured intracranial aneurysms (2nd least frequent aneurysm location); OR 0.06798 (95% CI [0.2100; 0.2201], p-value < 0.0001).

**Conclusion** Ophthalmic aneurysms have a low relative risk of rupture compared to other intracranial aneurysms.

**Disclosure of Interest** Nothing to disclose.

## 2.3 ISCHEMIC – Treatment

### 028/275 COST UTILITY ANALYSIS OF BRIDGING INTRAVENOUS THROMBOLYSIS WITH ENDOVASCULAR THROMBECTOMY

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**Introduction** Clinical equipoise exists behind bridging intravenous thrombolysis (BT) with endovascular thrombectomy (EVT).

**Aim of Study** To compare the cost-effectiveness of EVT alone vs. BT in acute ischemic stroke (AIS)

**Methods** We conducted a model-based cost-utility analysis comparing the cost-effectiveness of EVT alone vs. BT in AIS. Subsequently, we developed a Markov state transition model to assess the costs and outcomes over 1-year, 5-year, and 20-year time horizons. We considered the impact of disability and recurrent stroke on mortality risk, health-related quality of life, and costs. We estimated total and incremental cost, quality-adjusted life years (QALYs), and incremental cost-effectiveness ratio (ICER), expressed as an incremental cost per QALY gained of BT compared with EVT alone. Probabilistic analysis was used to calculate the reference case estimates.

**Results** The average costs per patient were estimated to be \$55,503, \$57,814, \$68,183, and \$84,946 for BT, and \$47,311, \$49,556, \$59,625, and \$75,898 for EVT only over 90-day, 1-year, 5-year, and 20-year, respectively. The cost saving of EVT only strategy was driven by the avoided medication costs of IVT (ranging from \$8,193 to \$9,048). The additional thrombolytics led to slight decrease in QALY estimate during the 90-day time horizon (loss of 0.0016 QALY), but a small gain over 1-year, 5-year, and 20-year time horizons (0.0108, 0.0638, and 0.1481 QALY). With similar outcomes and less cost, the EVT only strategy was cost-effective compared with BT.

**Conclusion** Our cost-effectiveness model suggests bridging with thrombolytics may not be cost-effective in AIS secondary to large vessel occlusion.

**Disclosure of Interest** The authors have nothing to disclose.