between both groups in patients' baseline characteristic, NIHSS on admission, frequency of intravenous thrombolysis pretreatment and time intervals (table). A favorable clinical outcome (mRS ≤2 at 3 months) was reached in 54,7% (29pts) of MCA occlusion versus 16% (4pts) of T-type occlusion, p≤0,001. Poorer clinical outcome in T-type occlusion may be influenced by lower successfull recanalization rate (TICI 2b-3 flow), which was reached in 12pts (48%) compared to 44pts (83%) with MCA occlusion, p≤0,001.
Conclusions: Direct catheter-based thrombectomy achieved significantly better clinical results in pts with isolated MCA occlusion compared to pts with T-type occlussion.

P505 | BEDSIDE
Left ventricular concentric geometry has a prognostic value for ischemic stroke or systemic embolism in atrial fibrillation patients: The Fushimi AF Registry

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Background: Atrial fibrillation (AF) is a risk factor for stroke or systemic embolism (SE). Left ventricular (LV) geometry is classified into the following four groups on the basis of LV mass index (LVMI) and relative wall thickness (RWT): concentric hypertrophy (CH, increased LVMI and increased RWT), eccentric hypertrophy (EH, increased LVMI and normal RWT), concentric remodeling (CR, normal LVMI and increased RWT) and normal geometry (NG, normal LVMI and normal RWT). The difference in the risk of stroke/SE depending on the LV geometry patterns is not understood in AF patients.
Methods: The Fushimi AF Registry, a community-based prospective survey, was designed to enroll all of the AF patients in Japan. Follow-up data were available for 4,066 patients as of November 2016, and the median follow-up period was 1,103 days. Of them, follow-up data including LVMI and RWT at the baseline from echocardiography were available for 2,787 patients. Using 115g/m^2 for male and 95g/m^2 for female as cutoff points of LVMI and 0.42 as a cutoff point of RWT in accordance with previous reports, we divided these patients into four groups; CH (n=476), EH (n=504), CR (n=772) and NG (n=1,035), and compared the clinical characteristics and outcomes.
Results: Percentage of female (CH vs. EH vs CR vs NG; 59.9, 51.8, 34.4, 27.7%; p<0.0001), age (76.6±10.2, 74.8±10.1, 74.2±10.2, 71.5±11.1 years; p<0.0001), paroxysmal AF (49.6, 43.5, 49.5, 53.2%; p=0.005), pre-existing heart failure (42.9, 52.4, 25.5, 23.1%; p<0.0001), prevalence of hypertension (75.6, 67.9, 65.7, 54.2%; p<0.0001) and CHA2DS2-VASc score (4.1±1.6, 3.9±1.6, 3.4±1.6, 3.0±1.7; p<0.0001) were different between the groups. The mean LVMI were 128.3±24.3, 131.9±30.0, 83.9±15.8 and 83.8±5.9 g/m^2 and the mean RWT were 0.499±0.081, 0.357±0.046, 0.484±0.063, 0.362±0.044 respectively in each group. Left atrial (LA) diameter (45.8±8.4, 46.9±8.6, 42.1±7.8, 42.4±7.6 mm; p<0.0001) was also different. Prevalences of prior stroke/SE, diabetes mellitus and prescription of oral anticoagulants (OACs) were comparable between the groups. In Kaplan-Meier analysis, the incidence of ischemic stroke/SE was different (2.6, 1.7, 2.4, 1.4 per 100 person-years; p=0.009, by log-rank test). Increased RWT (RWT>0.42) (hazard ratio [95% confidential interval]: 1.53 [1.12–2.12]; p=0.008), but not increased LVMI (1.05 [0.74–1.48]; p=0.8) was an independent predictor of the incidence of ischemic stroke/SE after adjustment by the components of CHA2DS2-VASc score and the prescription of OACs. Compared to NG as a reference, each LV geometry pattern has distinctive prognostic value for the incidence of ischemic stroke/SE: CR (1.59 [1.07–2.37]; p=0.02), EH (1.02 [0.61–1.68]; p=0.9) and CH (1.47 [0.91–2.36]; p=0.11) after adjustment by the components of CHA2DS2-VASc score, the prescription of OACs and LA enlargement (LA diameter>45mm).
Conclusion: LV concentric geometry has a prognostic value for ischemic stroke/SE in AF patients.

P506 | BEDSIDE
Higher body mass index predicts 1-year survival after acute ischaemic stroke

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Background: The nature of the association between body mass index (BMI) and mortality in ischemic stroke patients has varied between studies.
Purpose: To determine whether BMI would predict mortality in acute ischemic stroke patients.
Methods: Prospective database of 1718 acute ischemic stroke patients admitted to a single university hospital from December 2008 to November 2010 was analyzed. We included 1171 (68%) patients with measured BMI. Univariate analysis and multivariate logistic regression (including age, NIHSS, reperfusion, gender, race, creatinine, troponin I, heart rate, systolic blood pressure and ejection fraction) were performed using JMP version 10.
Results: Median age was 72 (IQR 61, 81), 607 (52%) patients were female and 1050 (90%) patients were White. Median admission NIH stroke scale (NIHSS) was 7 (IQR 3, 15) and 322 (27%) patients received reperfusion therapy. Median BMI was 27.85 (IQR 24.54, 32.37) kg/m^2 and mean BMI was 29.08±6.91 kg/m^2. Inpatient mortality occurred in 128 (10.9%) of patients, and 1-year mortality occurred in 295 (25.2%) of patients. BMI was inversely associated with age (r2 = 0.08; p<0.0001), but was not associated with NIHSS (p>0.1). Increasing BMI was associated with lower inpatient (unit OR 0.97, chi square 4.09, p=0.04) and 1-year mortality (unit OR 0.95, chi square 19.02, p <.0001). Analysis of BMI quintiles (Figure 1) revealed a continuous inverse association between higher BMI and lower 1-year mortality (p<0.0001 for trend); this relationship was weaker for inpatient mortality (p=0.02 for trend). Multivariate analysis showed an independent association between BMI and 1-year (unit OR 0.96, 95% CI 0.93–0.99, p=0.02), but not inpatient (unit OR 0.98, 95% CI 0.94–1.02, p=0.40), mortality.

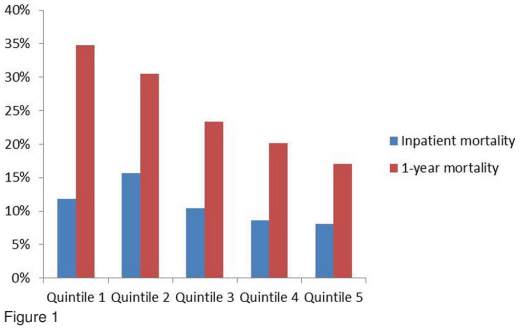

Figure 1

Conclusion: Increasing body mass index in ischemic stroke patients is independently associated with decreased 1-year, but not inpatient, mortality.

P507 | BENCH
Endovascular selective cerebral hypothermia; experimental in vivo studies and initial clinical experience

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Introduction: The neuroprotective effects of hypothermia following cardiac arrest and acute stroke have been demonstrated in experimental models and clinical trials. Experimental studies indicate that improved efficacy and broadened indications can be achieved with moderate to deep hypothermia. However, current techniques require systemic cooling, and are unable to cool rapidly and deeply without serious detrimental effects.
Purpose: To investigate a new catheter-based system and technique to rapidly, deeply and selectively cool the brain.
Methods: Using a standard transfemoral technique in large swine (60–72 kg), the multilumen catheter was positioned to isolate the right or left common carotid artery. Blood was withdrawn from the aorta via one lumen, cooled extracorporeally, and reperfused through a second lumen into the carotid artery. Outflow blood was cooled to 5–20°C, and reperfused at rates of 80–250 ml/min for 30–180 minutes. Temperature was measured in bilateral frontal lobes, nasopharynx, ear, esophagus, jugular vein and descending aorta. In a porcine stroke reperfusion model, 25 pigs were randomly assigned to 3 hours of selective cerebral cooling to 26°C or normothermia, following 3 hours of ischemia achieved by surgically clipping a middle cerebral artery. Brain MRI and histology were evaluated by experts who were blinded to the intervention.
Results: Cerebral cooling to as low as 15°C was achieved with no significant systemic cooling. Initial cooling rates of 1.8°C/min were attained, and were dependent on the flow rate and temperature of the perfused blood. Passive rewarming did not result in rebound hyperthermia. No adverse events were observed. In the stroke reperfusion model, a significant reduction in stroke volume was observed by selective cerebral cooling to 26°C compared to the normothermic control group. In initial human experience, selective cerebral cooling to 26°C resulted in excellent outcomes with no neurological deficits in the settings of neurosurgery and out of hospital cardiac arrest.
Conclusion: This new catheter-based system and technique shows promise in providing rapid, selective, deep cerebral hypothermia, and may offer an improved method for neuroprotection during neurosurgery, cardiac arrest, acute stroke and other ischemic insult.
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P508 | BEDSIDE
Does empiric atrial appendage closure in patients with atrial fibrillation impact rates of late withdrawal of anticoagulation and does this affect subsequent stroke incidence

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Background: Atrial fibrillation (AF) is a major cause of stroke and results in significant morbidity and mortality. Surgical exclusion of the left atrial appendage (LAA) is often performed at the time of cardiac surgery to decrease cardioembolic risk,