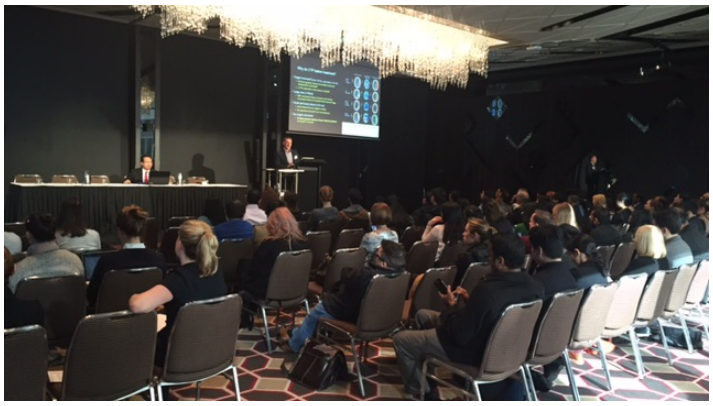
ASA Newsletter: Issue May 2019

Welcome to all ASA members to the first ASA newsletter for 2019

The new ASA Governance Structure

I will like to introduce the new ASA executive structure which will provide governance to the academy. There is a three year term for each executive member.

President: Henry Ma
Vice-President: Andrew Wong
Secretary: Elizabeth Pepper
Treasurer: Benjamin Clissold



Annual ASA scientific meeting 2019

This year the meeting will be held in Brisbane 24th August to 25th August 2019 at Westin Hotel. The invitation flyer will be sent out shortly to all the members. I hope you can distribute this information to all your colleagues including junior medical staff.

Click here to register and purchase

Joint ASA-Korea Stroke Society Congress 2020

Following on the success of 2018 first Joint ASA-Korean Stroke Society Congress, the second Joint meeting will be held in Australia in June 2020. This is going to be a large meeting with participants and speakers from Asia Pacific region.

tickets

Opportunities to interact with ASA

To enhance the communication between ASA and its members we are currently developing an ASA Facebook page for news and interactive comments.

Facebook

Education Modules

ASA is committed to provide ongoing stroke education to our members and we are finalising three education modules which will be accessible via the ASA website with password protection.
http://www.strokeacademy.com.au

Trial Update from International Stroke Conference (ISC) 2019

SHINE
RIGHT-2
MISTE III
ENCHANTED BP
EXTEND

The SHINE trial: Intensive VS Standard Treatment of Hyperglycaemia in Acute Ischemic Stroke

Karen Johnston et al.

Hypothesis: Intense glucose control to target range of 80-130mg/dl with IV insulin infusion in hyperglycaemic acute ischemic stroke patients within 12 hours of symptoms onset will improve favourable outcome by an absolute 7% as measured by mRS at 90 days after stroke.

Trial Design: This was a single blinded treatment with double blinded outcome trial. Patients were randomised within 12 hours and treatment up to 72 hours from onset. Patients with type 2 diabetes and glucose >110mg/dl or no diabetes history with glucose >=150mg/dl, and NIHSS 3-22.

Primary efficacy: adjusted favourable outcome of mRS at 90 days.

Safety measures: Intense glucose control safety measured by <4% increase in severe hypoglycaemia compared to control

Result: a total of 1151 patients were randomised with median age of 66 years. 80% of patients had T2DM with median glucose of 188mg/dl and median NIHSS of 7.

64% of the patients received tPA and 12% had thrombectomy. The median time to randomisation was 7.1 hours,
Unfortunately, the trial was stopped early for futility with 82% planned recruitment. Primary efficacy outcome 20.5% (intense treatment) vs 21.6% (standard treatment) p=0.55, the rate of severe hypoglycaemia was 2.6% vs 0%. Favourable NIHSS 43.7% vs 44.7% (intense vs standard treatment).

Interpretation: Intense glycaemic control did not improve clinical outcome compared to standard treatment in ischemic stroke patients within 72 hours of onset.

RIGHT-2 BHF glyceryl trinitrate for pre-hospital ultra-acute stroke (published in Lancet February)
Philip Bath et al.

Hypothesis: Acute application of GTN in ischemic stroke (in ambulance) can improve clinical outcome.

Method: Paramedic assessment and recruitment of patients with FAST score >=2 within 4 hours of stroke onset with systolic blood pressure >=120 mmHg. Patients with GCS <8 and glucose <2.5 nmol/L were excluded. Recruited patients were given acute patch either GTN 5mg/d or sham patch.

Results: 1149 patients were randomised with median age 72 years, SBP 162 mmHg, DBP 92 mmHg, 60% of patients with FAST score 3. 53% were ischemic stroke, 13% intracranial haemorrhage but also include 24% stroke mimics. There were mild to moderate blood pressure reduction with drop if SBP -5.3 mmHg, DBP –2.6 mmHg
Primary outcome intention to treat (ITT) mRS adjusted odd ratio (OR) 1.04 p=0.69 Poor outcome odd ratio (OR) 1.25 p=0.083 with no difference in mortality.

Interpretation: Acute application of GTN patch to lower the blood pressure did not improve clinical outcome but with a potential trend to do harm……

MISTE III Evaluating Imaging-guided, Minimally Invasive Surgery for ICH
Daniel Hanley et al.

Hypothesis: Does intracerebral haemorrhage (ICH) volume reduction via the MISTIE procedure alter functional outcome in patients with large ICH?

Method: Patients with supratentorial ICH >=30ml within 12-72 hours of onset and without any vascular defect on CTA were recruited. Patients with platelet count <100 and INR >1.4 were excluded. Primary outcome mRS 0-3 at 35 days, safety at 30 days.

Results: 506 patients were randomised and 44% with GCS 9-12, median NIHSS 19,

median ICH volume 43 ml, BP 177/99, ictus to randomisation was 47 hours, primary outcome mRS 0-3 p=0.33 but with ordinal mRS =0 adjusted OR 0.6 p=0.03, all-cause mortality HR 0.67 p =0.037,
Overall ITT did not reach the postulated goal: there was improved survival but not functional outcome. However subgroup with surgical reduction of ICH to volume <=15ml showed improved functional outcome.

Interpretation: MISTE III was a negative trial with negative primary ITT functional outcome. There seems to be survival benefit but not functional benefit. The subgroup with substantial ICH volume reduction might benefit.

ENCHANTED BP Intensity Arm
Craig Anderson et al.

Hypothesis: acute intense reduction of blood pressure vs guideline BP control post-tPA would improve functional outcome.

Method: Patients who received tPA < 4.5h after stroke onset were randomised to Intense systolic blood pressure (SBP) reduction aiming for < 130-140mmHg in less than 1hour and maintained for 72 hours, vs guideline SBP of 180mmHg. Local anti-hypertensive and best practice were applied. Primary outcome was defined as shift of mRS at 90 days. Secondary outcome was defined as good recovery with ordinal mRS 0-1.

Results: 2227 patients recruited with median age of 67 years, 65% from China, median NIHSS 7, 43% of patients with large artery atheroma.
Median time from onset to BP lowering BP lowering treatment was 3.7 hours.
Median SBP reduction for intense treatment was 153 to 144 mmHg vs guideline treatment was 146 to 139 mmHg (p<0.001) with adjusted OR=0.97 p=0.71. In terms of safety outcome the odd ratio for any ICH was 0.75 p=0.0137. Death or dependency mRS 3-6 47% vs 48% OR 0.94, p=0.47. Death at 90day 9% vs 8% p=0.2

Interpretation: Overall intense BP lowering was not shown to be superior to guideline recommended BP lowering but safe with lower ICH rate.

EXTEND Trial
Henry Ma et al.

The EXTEND manuscript has just been published in NEJM on 9th May.
Currently the thrombolysis time window is restricted to 4.5 hours from stroke onset and patients with wake-up stroke are excluded. EXTEND tested the hypothesis that extending the acute ischemic stroke thrombolysis time window up to 9 hours from stroke onset by selecting patients with wake-up stroke using automated perfusion imaging selection may improve functional outcome.
EXTEND was a phase 3 multi-centred randomised controlled trial with Alteplase vs

Placebo.

Both the intention to treat (35% vs 29% with adjusted Odds Ratio 1.44 p=0.04) and per protocol analysis have shown a significantly higher rate of excellent functional outcome (mRS 0-1) in the Alteplase group compared to placebo at 3 months. In addition, alteplase was also superior to placebo in early functional improvement (NIHSS 0-1 or dropped by more than 8 points within 24 hours), reperfusion (90% and 50%), recanalization (TICI 2b or 3) and good functional outcome (mRS 0-2). There was no different in mortality between the two groups. There was higher rate of intra cerebral haemorrhage in the alteplase group compared to placebo (7% vs 1% p=0.053) which was consistent with other thrombolytic trials and this did not negate the benefit of alteplase in terms of excellent functional outcome.

Interpretation: EXTEND has shown superiority of alteplase compared to placebo in terms of excellent functional outcome in the extended thrombolysis time window up to 9 hours from stroke onset for patients with favourable perfusion imaging. EXTEND is likely going to change practice in stroke medicine globally.