

12th May 2016

Highlights from the Third Day of the 2nd European Stroke Organisation Conference 2016 (ESOC 2016) in Barcelona.

Over 3700 delegates attended ESOC 2016 in Barcelona. Today's program included teaching courses, scientific presentations, and presentations from clinical trials that will have an immediate impact on how we care for patients with stroke.

Highlighted trials from the third day included;

Wake-Up Strokes – Professor Steven Warach of Dell Medical School, University of Texas at Austin, Austin, Texas, USA presented further data from the MR WITNESS trial. MR WITNESS explored whether clot-busting treatment, which is given to some patients within 4.5 hours of stroke onset, could be used in patients with unknown onset time of stroke. This analysis explored whether patients who wake up with stroke symptoms differed from patients with other unwitnessed strokes. No differences were observed between the wake-up and non-wake-up groups on known baseline predictors of clinical outcome or tPA response.

MR CLEAN Trial – Prof Yvo Roos presented the two-year follow-up results from the seminal MR CLEAN trial, the first trial to demonstrate that physical removal of blood clots blocking the largest blood vessels in the brain within 6 hours after a stroke improved outcome. Data continue to emerge from this ground breaking trial.

HERMES - The HERMES collaboration pooled imaging data from 5 randomized trials of endovascular thrombectomy. They presented an analysis of the relationship between ischaemic core volume, a measure of the already dead brain, and functional outcome in 479 patients with acute stroke who received thrombectomy. They used CT perfusion imaging to assess the ischaemic core. This analysis aimed to help decide if patients with a big ischaemic core still benefit from thrombectomy. Although there were relatively few patients with big ischemic core included in the trials, the benefit from thrombectomy was preserved across the range of ischemic core volumes. This means patients with large ischemic core should not necessarily be excluded from thrombectomy. The authors said further data in this group are required.

Stent Retrievers, Medical Therapy and Intravenous Thrombolysis – Dr Nogueira of Grady Memorial Hospital, Emory University School of Medicine, Neurology, Atlanta, USA presented data on an analysis of patients with stroke due to large artery occlusion. Outcomes in patients treated with stent retrievers, medical therapy or intravenous thrombolysis were compared. In this non-randomised study thrombectomy was the most effective treatment, including in patients over the age of 80 years and in patients with occlusion of more distal parts of the middle cerebral artery.

ACTION: Natalizumab for Acute Ischaemic Stroke – Prof Veltkamp from Imperial College, London, presented data from this phase II clinical trial of intravenous natalizumab in 161 patients with acute ischaemic stroke. This antibody is used to reduce acute brain inflammation in multiple sclerosis and may have a role in acute stroke. Although the trial did not achieve its main target of reducing growth in the size of early strokes, in secondary, hypothesis-generating analyses, more patients had an excellent functional outcome over 90 days on the drug compared to placebo. This warrants further studies of the effect of natalizumab in acute stroke.

Early Anticoagulation with Rivaroxaban vs. Warfarin – Dr Hong from the Ilsan Paik Hospital, Inje University, Goyang, Republic of Korea presented data from a prospective randomized open trial with blinded endpoint assessment. It compared rivaroxaban, a novel oral anticoagulant drug, with warfarin, the established treatment, in patients with atrial fibrillation and ischaemic stroke who were suitable for anticoagulation. Patients were randomised within 5 days after stroke. Both treatments were equally safe but rivaroxaban treatment was associated with a shorter time in hospital.

INCH: PCC vs. FFP for Vitamin K Antagonist Associated Intracerebral Haemorrhages – Prof Steiner of Heidelberg University Hospital, Germany, presented data from this randomized, open, blinded endpoint trial of two agents to reverse vitamin K dependent anticoagulants, FFP and PCC, in 50 patients with intracerebral haemorrhage. PCC was significantly more effective at reversing the anticoagulant effect of vitamin K antagonists and reduced the risk of growth of the haematoma. This did not appear to be due to effects on blood pressure. This trial suggests a specific role for PCC over FFP in treating vitamin K antagonist-associated intracerebral haemorrhage.

24/7 In-Ambulance Telestroke – Dr Brouns of the Universitair Ziekenhuis Brussels, Belgium presented results of the Pre-Hospital Stroke Study, called PreSSUB II. The study compared standard emergency care with standard emergency care complemented by a 24/7 emergency in-ambulance teleconsultation service provided by stroke experts. The trial suggested that the implementation of 24/7 in-ambulance telestroke service resulted in decreased delays in key diagnostic processes without any increased risk.

Left Atrial Appendage Occlusion in Atrial Fibrillation and Cerebral Haemorrhage – Prof Johnsen presented results from this propensity score matched follow-up study. The left atrial appendage (LAA) is a pouch in the heart where most stroke-causing blood clots form in patients with an irregular heart rate (atrial fibrillation). This can be physically occluded, particularly in patients who cannot receive blood thinning agents due to cerebral haemorrhages. In 142 such patients with atrial fibrillation and cerebral haemorrhage treated with LAA occlusion, compared to 142 patients on standard care, there was a reduction in death, ischaemic stroke and major bleeding, which was significant for mortality and major bleeding. LAA occlusion may therefore be an effective treatment in patients at risk of ischaemic stroke due to atrial fibrillation who have had a cerebral haemorrhage.

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