

Report of the 18th ESO Stroke Summer School: 24th – 29th August 2014, University of Glasgow, Scotland, UK

The Setting

The week's program of lectures was delivered to students in the neo-Gothic main building of the University of Glasgow campus, designed by Sir George Gilbert Scott in the nineteenth century. The campus is situated in Glasgow's stimulating West End. The keynote lecture was delivered by Professor Michael Brainin in the formal setting of the Royal College of Physicians and Surgeons of Glasgow, in Glasgow city centre.

The Summer School Students

The Glasgow ESO Summer School drew many strong applications from 23 European nations and places were offered to 36 candidates, of which 35 were able to attend from the following countries: Italy (7), England (5), Portugal (4), Spain (3), Lithuania (2), Scotland (1), Finland (1), Czech Republic (1), Denmark (1), France (1), Germany (1), Greece (1), Poland (1), Moldova (1), Romania (1), Slovakia (1), Sweden (1), Switzerland (1) and Ukraine (1). Our aim was to distribute invitations equitably to young doctors from a broad range of European training backgrounds and we sought to select those who could demonstrate evidence of a clear interest in stroke medicine in their applications. The high numbers of delegates selected from England, Italy and Portugal reflected the greater volume of applicants with strong records from these nations.

The Lecture Program

This was delivered by an outstanding group of lecturers from local and European centres of excellence, with both clinical and academic backgrounds. The lectures covered a wide range of current issues pertinent to both clinicians and researchers in stroke medicine, and many speakers drew on their active academic interests to offer new insights into stroke classification (such as 'Embolic Stroke of Undetermined Source', ESUS), pathogenesis (such as the natural history of small vessel ischaemia) and treatments (such as the use of novel anticoagulants, recanalisation in large vessel occlusion and hypothermia).

Our speakers agreed to lecture at the School despite the pressures of personal and professional commitments and we are most grateful to them for their commitment. The speakers included in this Summer School are listed below in chronological order of their appearance during the week of teaching, together with the topic of their lecture.

Dr. Adrian Brady, University of Glasgow, UK (cardiac investigation in stroke risk stratification).

Professor Martin O'Donnell, National University of Ireland Galway, Ireland (embolic stroke of undetermined source).

Professor Leif Ostergaard, University of Aarhus, Denmark (perfusion imaging).

Professor Peter Sandercock, University of Edinburgh, UK (IST-3).

Professor Ale Agra, University of Leiden, Netherlands (antiplatelet agents in secondary prevention).

Dr. Campbell Tait, Southern General Hospital, Glasgow, UK (novel anticoagulants – a haematologist's perspective).

Dr. Alexander Kunz, Centre for Stroke Research, Berlin, Germany (how to 'scan in a van').

Dr. Terry Quinn, University of Glasgow, UK (assessment of cognition after stroke).

Professor Vincent Thijs, University of Leuven, Belgium (syndromes of basilar artery occlusion).

Professor Keith Muir, University of Glasgow, UK (investigation of rare causes of stroke)

Professor Peter Schellinger, Johannes Wesling Klinikum, Minden, Germany (debate: intra-arterial treatments in acute ischaemic stroke; methodological difficulties in stroke clinical trials).

Professor Phil White, University of Newcastle, UK (debate: intra-arterial treatments in acute ischaemic stroke).

Professor Roland Veltkamp, Imperial College, London, UK (novel anticoagulants – a neurologist's perspective).

Dr. Jonathan Coutinho, Academic Medical Centre, Amsterdam, Netherlands (cerebral venous sinus thrombosis).

Dr. Tracey Baird, Southern General Hospital, Glasgow, UK (tips in the diagnosis of TIA).

Dr. Ursula Schulz, University of Oxford, UK (neuroimaging in TIA).

Professor Turgut Tatlisumak, University of Helsinki (speeding up door-to-needle time).

Professor Didier Leys, Lille University Hospital, France (ABCD2 and other scales).

Dr. Patrik Michel, Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland (advanced imaging in stroke).

Professor Peter Ringleb, University of Heidelberg, Germany (carotid endarterectomy and carotid stenting).

Professor Michael Brainin, Danube-University Krems, Austria (post-stroke cognitive decline: keynote lecture).

Mr. Roddy O’Kane, Southern General Hospital, Glasgow, UK (surgical management of intracerebral haemorrhage).

Professor Charlotte Cordonnier, Centre Hospitalier Régional Universitaire de Lille, France (management of intracerebral haemorrhage).

Professor Thompson Robinson, University of Leicester, UK (blood pressure management in intracerebral haemorrhage).

Dr. David Werring, University College Hospitals London, UK (neuroimaging of cerebral haemorrhage).

Professor Christian Stapf, Hôpital Lariboisière, Paris, France (understanding and recognising arteriovenous malformations).

Dr. Valeria Caso, University of Perugia, Italy (arterial dissection).

Dr. Marco Duering, Ludwig-Maximilian-University, Munich, Germany (small vessel disease).

Dr. Jesse Dawson, University of Glasgow, UK (the modified Rankin scale).

Professor Peter Langhorne, University of Glasgow, UK (the stroke unit).

Professor Malcolm Macleod, University of Edinburgh, UK (trials in hypothermia for acute stroke).

Professor Bart van der Worp, University Medical Centre, Utrecht, Netherlands (indications for hemicraniectomy).

Professor Gary Ford, University of Newcastle, UK (complications of intravenous thrombolysis).

Professor Herzig, Palacký University and University Hospital, Czech Republic (recanalisation of acute internal carotid artery occlusion).

The Summer School case presentations

Applicants were required to submit a short case presentation, comprising a clinical vignette outlining a difficult diagnostic or management decision that would stimulate discussion amongst the delegates and faculty staff. Several interesting presentations were selected for discussion, including cases of recurrent posterior circulation stroke, early repeated thrombolysis, CADASIL, crescendo TIA in MCA stenosis, perfusion imaging in migraine

mimicking acute stroke, and diagnostic difficulties in venous sinus thrombosis. Dr. Katri Silvennoinen (Finland) was awarded the prize for the best case, describing an adverse outcome in a patient with recurrent embolic infarction of unknown origin. The case stimulated reflection on the need to review imaging carefully in hyperacute patients and the limited evidence relating to treatment of embolic stroke of undetermined source.

The Social Program

The Summer School participants were able to enjoy some local hospitality throughout the week, with evening meals at several venues. We were particularly grateful to be granted a civic reception by the City of Glasgow in the City Chambers, and to have the historic surroundings of the Royal College of Physicians & Surgeons of Glasgow as the venue for our keynote talk. Local stroke fellows organised a trip to a local whisky distillery, and we managed a brief foray into the countryside at Loch Lomond. We have to thank the boat trip owner for accommodating a few late arrivals who were distracted by the pleasures of Luss on a summer day. Despite being about 10 degrees C colder than the average, the sun shone on most days!

Feedback and Evaluation of the Summer School

Feedback was extremely positive from all of the participants, both delegates and speakers. The only negative comments related to limited choice of drinks at coffee breaks.

Acknowledgements

We are very grateful for the generous support from Boehringer Ingelheim, Covidien, Penumbra, Lundbeck, and EVER. We are especially grateful for the work put in by Kirsty McAneny who took on the summer school as her final contribution to the University before moving on to pastures new, and without whom the event would not have been possible.

Organising Committee:

Keith Muir, SINAPSE Professor of Clinical Imaging

Krishna Dani, Lecturer in Neurology

Johann Selvarajah, Consultant Neurologist and Honorary Clinical Senior Lecturer

University of Glasgow, UK, 13th October 2014.

