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Stroke symposium

N Hunter
Specialist Registrar in General and Geriatric Medicine, Western General Hospital, Edinburgh, UK

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Correspondence to N Hunter
Western General Hospital
Crewe Road South
Edinburgh EH4 2XU
UK

e-mail neilhunter@doctors.org.uk

INTRODUCTION

Stroke remains the second leading cause of death worldwide and a major contributor to disability in the adult population.[1] This year's symposium attracted a sizeable delegation of over 120, with web streaming to 18 different sites in 12 countries. It brought together generalists and trainees as well as experts within the stroke field to discuss and explore current practices, common pitfalls and how the speciality may evolve.

SESSION 1: STROKE AT THE FRONT DOOR

Dr John Bamford (Neurologist/Clinical Associate Professor, Leeds) opened up the symposium proceedings with an aptly named lecture 'Are you sure it's a stroke?' It was heartwarming, in particular from a trainee's perspective, to hear that even the experts describe trouble differentiating stroke from the mimics of Todd's paresis, migraine and acute vestibular syndrome. Dr Bamford explained the difficulty in current practice, with the advent of thrombolysis, that you do not have several days to make the diagnosis unlike 20 years ago and that 'time really is brain' in the acute setting.

Dr Andrew Farrall (Neuroradiologist, Edinburgh) provided an overview of 'The role of imaging in hyperacute stroke'. He emphasised that stroke is primarily a clinical diagnosis and that CT imaging at the front door is essential to exclude haemorrhage. It was felt that advanced techniques such as CT head angiogram or perfusion scan would not assist the diagnosis as a relevant negative scan would not confirm the absence of stroke disease.

The benefits of a dedicated Stroke Unit in terms of improved survival and functional outcomes were reiterated by Professor Martin Dennis (Stroke Medicine, Edinburgh). His lecture entitled 'Minimising collateral damage' reviewed the evidence of the components that may contribute to these benefits. Interestingly, Professor Dennis pointed out several large studies have demonstrated that treating blood pressure acutely in stroke has no effect on overall outcome.

SESSION 2: EMERGING THEMES IN STROKE MEDICINE

Professor Joanna Wardlaw (Neuroradiologist, Edinburgh) opened the second session with an overview of the 'Management of small vessel disease'. Professor Wardlaw described stroke as the 'tip of the iceberg' in terms of the clinical disease burden of this problem and suggested small vessel disease was a common cause of physical disability and cognitive decline. It has been increasingly recognised that small vessel disease is a common cause of haemorrhagic stroke as well as ischaemic events. However, there remains no established guidance on the secondary prevention of small vessel disease.

The Keynote Lecture of the day was delivered by Professor Peter Sandercock (Neurologist, Edinburgh) addressing the topic 'Thrombolysis: who to treat and who not to treat'. The emphasis was that the clinician assessing the acute stroke patient should 'start with the presumption to treat' and that the greatest benefit from thrombolysis was within 3 hours of an ischaemic event (<3 hours - Number need to Treat (NNT)=10, 3–4.5 hours NNT=20).[2] Professor

Sandercock felt there should be less apprehension with regards the 'relative contraindications' and that there should be more willingness to thrombolyse severe strokes as these individuals have the most to gain from treatment.

SESSION 3: DILEMMAS IN INTERVENTIONS

In this interactive session, our panel of experts – Professor Phil White (Interventional/ Diagnostic Neuroradiology, Newcastle); Professor Christine Roffe (Stroke Physician, Stoke-on-Trent) and Dr Simon Hart (Stroke Physician, Edinburgh) – gave their opinions and took questions from the audience regarding the topics of intra-arterial intervention, hemicraniectomy and patent foramen ovale closure (PFO), which had been nicely incorporated into a series of pre-prepared vignettes.

There was unanimous agreement from the panel that although intra-arterial intervention appeared an attractive option in acute stroke, particularly for patients already on anticoagulation, there is currently no convincing data to support its widespread use. A more split consensus came on discussion of the hemicraniectomy vignette however, as although the NNT=2 in terms of survival, the degree of disability postoperatively is significant and all involved need to carefully consider this implication.[3] Finally, the current guidance on PFO closure in recurrent strokes was outlined by Dr Hart with reference to the NHS Commissioning Board April 2013 document which explains there is no funding for the latter due to lack of evidence demonstrating any benefit.[4]

SESSION 4: STROKE IN THE COMMUNITY

Professor Andrew Schwartz (Neurobiology, Pittsburgh) opened up the penultimate session of the day with a lecture entitled 'The Bionic Recovery?'. This detailed the last 10 years of his work and, through video footage, he demonstrated the 'mind blowing' achievement of providing a tetraplegic patient with a prosthetic arm which through intuitive control can perform daily tasks through co-ordinated and graceful movements.

The overview of 'Imaging based rehabilitation: evidence based optimism and pessimism' was provided by Dr Nick Ward (Neurologist, London). He described the advances in functional neuroimaging and suggested that as our knowledge of neuronal reorganisation post stroke evolves, so will our ability through imaging to predict outcomes and response to novel plasticity-enhancing therapies.

Unfortunately, due to unforeseen circumstances, Professor Keith Muir (Neurologist, Glasgow) was unable to deliver the final much anticipated lecture 'Stem cell based recovery' exploring the current progress and results of the Pilot Investigation of Stem Cells in Stroke (PISCES) Trial. However, Professor Anthony Ward (Rehabilitation Medicine, Stoke-on-Trent) stepped in at the last minute to give the audience an insight into his recent work on 'Post Stroke Checklists' within the community.

REFLECTION

This symposium offered the delegates a comprehensive overview of the current practices within stroke and explored common pitfalls that individuals may encounter. It demonstrated the breadth of interest within the speciality and the evolving areas of research both within the acute and rehabilitation settings of stroke.

EDUCATION

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