

Neurology symposium

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INTRODUCTION

Neurology is often viewed as a speciality filled with syndromes, eponymous names and not a lot else, very interesting but devoid of treatments or useful interventions. This stereotype of old can no longer be said to hold true with our increasing understanding of the pathology of neurological disease and our ever growing arsenal of treatment options. This symposium set out a program covering a wide swathe of common neurological presentations with practical information on diagnosis and management. The speakers were given the difficult task of pitching their lectures at an audience of around 100 delegates; including general practitioners, neurologists, physicians, trainees and medical students as well as an international audience via webstreaming.

SESSION 1 – APPLIED NEUROSCIENCE

The symposium opened with Dr Jonathan Bhattacharya (Queen Elizabeth University Hospital, Glasgow). He provided an overview of neuroanatomy from the early days of pneumoencephalograms to modern imaging techniques and more advanced imaging. He provided useful pointers for the non-radiologist along the way.

Professor David Bennett (University of Oxford) was next on the podium and he spoke about peripheral nerve function. He stressed that clinical phenotyping of nerve disorders remains key. However, the emergence of gene panels means that a genetic diagnosis is achievable for more patients, superseding the traditional role of histology. The reducing cost of whole genome sequencing is allowing research into inherited peripheral nerve disorders and has led to the identification of new targets for analgesic medications.¹

The final lecture of Session 1 was provided by Dr Andrew Schaefer (Newcastle Mitochondrial Centre) who told us that mitochondrial disorders have an incidence of 1 in 4,300. Signs can be subtle but the family history is often revealing. The most common mitochondrial mutation (m.3243A>G) is associated with status epilepticus; it requires aggressive management as ongoing status causes oxidative stress and cell death.

SESSION 2 – MANAGING CHRONIC NEUROLOGICAL ILLNESS

Dr Paul Worth (Addenbrooke's Hospital, Cambridge) began the second session with a practical guide to managing advanced Parkinson's disease. As the disease progresses the therapeutic window narrows and treatment regimes need to be adapted if they are to be effective. Device assisted treatment such as apomorphine, Duodopa and deep brain stimulation can be extremely effective but only in carefully selected patients.²

Dr Lynne Hutton (Driving Assessment Unit, Edinburgh) continued the session with an informative explanation of her role at the driving assessment unit. She outlined the vast array of special adaptations that can be provided to enable those with a physical disability to drive. She also reinforced the ever changing nature of driving regulations and the need to consult the DVLA website.

The Alexander Morison lecture was given by Professor Kate Pickett (University of York) who spoke about her research on the effects of social inequality on physical and emotional health. Through some very striking pieces of visual data she demonstrated a close link between increasing social inequality and a wide range of health measures.

SESSION 3 – CNS INFECTIONS

The topic of HIV neurology was tackled by Dr Nick Davies (Chelsea and Westminster Hospital). He began by addressing the scale of the problem; there are an estimated 100,000 people living with HIV infection in the UK, with as many 25% being unaware of their condition.³ Incidence varies but is as high as 6% in some groups. Anti-retroviral medication has revolutionised the treatment of HIV but these medications are not without side effects.⁴ As the cohort of patients who have been successfully treated with anti-retroviral drugs ages, we face a new era of challenges including HIV associated neurodegeneration.

Professor Tom Solomon (Institute of Infection and Global Health, Liverpool) then gave a practical guide to the diagnosis and management of encephalitis. Key points included the importance of early treatment in suspected HSV infection, the role of CSF analysis and the need to keep an open mind for more unusual tropical infections. Interesting research points included the ongoing trial of Dexamethasone (DexEncph Trial) in herpes simplex virus infection and the emerging evidence for a ‘second hit encephalitis’ mediated by anti-NMDA receptor antibodies.

SESSION 4 – NEUROLOGICAL SYMPTOMS

The challenging complaint of headache was covered by Dr Mark Weatherall (Charing Cross Hospital). He emphasised the importance of the history in guiding the extent of investigation needed. Sudden onset headaches, those that get progressively worse with time and headache associated with neurological deficits require urgent investigation for an underlying cause.

The closing lecture was given by Dr John Paul Leach (Queen Elizabeth University Hospital, Glasgow). He introduced the newly updated SIGN guidelines for the diagnosis and management of epilepsy. Notable changes included recommending the use of midazolam over diazepam in the initial management of seizure in the community and early discussion of Sudden Unexplained Death in Epilepsy with patients and carers.⁵

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