RCPE symposium – Infectious diseases

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The Infectious diseases symposium was held on 16 June 2017 at the Royal College of Physicians of Edinburgh

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This symposium tackled divergent themes, including neurological, emerging, and multi-resistant infections.

Session 1 – Neurological infection

Central nervous system (CNS) infections remain some of the most challenging infections faced by doctors. Dr Fiona McGill (Liverpool) gave an overview of the 2016 UK meningitis guidelines, which all clinicians doing the acute take should familiarise themselves with.[1] Dr McGill emphasised the need for prompt treatment, which can be delayed by unnecessary CT scanning. Lumbar puncture remains an essential investigation, and UK guidelines now suggest steroids may be given to all patients within 12 h of the first dose of antibiotics.

Moving from bacterial to viral infections, Dr Nick Davies (London) described the many ways in which viruses can affect the CNS. Globally, the most important causes of encephalitis are herpes simplex virus (HSV) and, outside the UK, arthropod borne (arbo-) viruses. Again, prompt treatment is vital,[2] handy tips for stopping acyclovir are a normal MRI scan 72 h after symptom onset or two negative HSV PCRs in CSF 48 h apart. A lumbar puncture done very early can be falsely reassuring — 10% have normal CSF white cell count — the key is to repeat the lumbar puncture.

In the immunocompromised patient, Pierre Tattevin (France) described how understanding the nature of immmunocompromise is the key to formulating a good differential diagnosis of CNS infections.[3] New molecular tests, imaging and improvements in stereotactic biopsy are revolutionising the management of CNS infection in this group.

Session 2 – International health

Dr Susan Hills (Colorado, USA) delivered the Dr John Hughes Bennett Lecture on Zika virus. Originally isolated in the Zika Forest in Uganda in 1947, it has recently crossed the globe, becoming recognised as a cause of Guillain Barré syndrome and severe congenital abnormalities, including microcephaly, collectively known as congenital Zika syndrome. Perinatal and sexual transmission was also described. Although most sexually transmitted cases have occurred within 30–40 days of infection, current UK advice for persons (in particular couples planning pregnancy) travelling to an area with high or moderate risk of Zika virus transmission is to avoid unprotected sexual intercourse for 6 months post travel for men, and two months for women. Pregnant women with partners who have travelled should avoid unprotected intercourse for the duration of pregnancy.[4]

From movement of viruses to the movement of people, Professor Melanie Newport (Brighton) reviewed migrant health. Migrants are a diverse group, with widely varying health needs. Most are young and healthy; however, on presentation to health services, a detailed, individualised assessment is helpful. Although migrants are disproportionately affected by infectious diseases, other illnesses, such as mental health problems, may be even more common, and should be evaluated. Family and social history can give clues to health risks and the degree of social support, which in turn influences illness coping strategies.

Session 3 – What's new in viral hepatitis?

Emma Thomson (Glasgow) gave a provocative talk raising the challenge of eradication of hepatitis C by 2030, which

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(along with hepatitis B) has been advocated by the World Health Organization. There has been a revolution in hepatitis C treatment over the last 10 years. Purely oral regimens now exist for all clinical scenarios, and we stand poised to eliminate hepatitis C, though monitoring for genotypic change and resistance must be undertaken.[5] Eradication will require a significant effort – one in which all physicians will have a role to play.

Harry Dalton (Truro) illustrated how much we did not know about hepatitis E virus until recently. Some genotypes of hepatitis E are zoonotic and are found in pigs in Europe. There are 100,000 annual cases in the UK, and a seroprevalence in France of 52% using the most reliable assay (the Wantai assay). Chronic infection with hepatitis E (mostly genotype 3) can occur in the immunocompromised; 10% of these patients will progress to cirrhosis within 2 years, but the condition is treatable with ribavirin. Hepatitis E has been identified in patients with neurological disease such as Guillain Barré syndrome, who often have little in the way of hepatitis, and are not jaundiced.[6] In summary, tell your transplant patients not to eat uncooked pork products, especially from France; suspect hepatitis E in unexplained neurological disease even if the hepatitis is modest; and check that your lab uses the Wantai assay for diagnosis.

Session 4 – Expert management of complex cases

The final session gave an excellent overview of several potentially very challenging clinical situations. Bridget Atkins (Oxford) highlighted the importance of the multidisciplinary team in the management of bone and joint infections. Often under-appreciated, the psychological and social consequences can lead to unsatisfactory interactions between patients and clinical teams. One of the most frequent bone and joint infections is prosthetic joint infection, for which debridement with implant retention has quite a good functional outcome, though many potential management strategies exist and need to be carefully weighed.

The increasing problem of drug resistant bacteria was tackled in the last two talks, with Mark Gilchrist (London) outlining some of the current drivers and strategies to combat the problem of antimicrobial resistance. With antimicrobial use being the principle driver of the emergence of resistance, choosing the right agent, and using the narrowest spectrum possible, for the shortest time possible, are all crucial. All doctors should be concerned about this threat, and should be vigilant in reducing overall antibiotic use.

Finally, Derek Sloan (St Andrews) described some new strategies for managing multi-drug resistant tuberculosis, including a new regimen tested in Bangladesh intended to shorten treatment, with an 89% success rate, and promising new drugs, such as bedaquiline. Overall, 95% of tuberculosis remains drug susceptible, but only around 50% of multi-drug resistant tuberculosis cases are identified, and only 40% get treatment. Management of multi-drug resistant tuberculosis cases should always involve specialists experienced in the field; the British Thoracic Society runs an expert panel to provide precisely such advice.

New treatments and guidelines for old conditions, new viruses and newly recognised disease syndromes dominated the day at this most fascinating symposium. In infectious diseases medicine, it seems, change is the only constant.

References

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