British Infection Society Trainees' Day

Manchester Conference Centre
Weston Room II & III
Weston Building
Sackville Street
Manchester
M1 3BB

Tuesday 11th September 2007

Programme

10.00 ***Coffee & Registration***

10.25 ***Introduction***

Session 1 Chair: Dr Lionel Tan

10.30 **Malaria and pregnancy**
Dr David Lalloo
Reader in Tropical Medicine, Liverpool School of Tropical Medicine

11.00 **Chikungunya infection: clinical manifestations, management and the current epidemic**
Dr Graham Lloyd
Special Pathogens Reference Unit, Health Protection Agency, Porton Down

11.30 ***Coffee***

Session 2 Chair: Dr Nikhil Premchand

11.50 **Epstein-Barr virus infection, persistence and role in cancer**
Prof Paul Farrell
Professor of Tumour Virology, Imperial College, London

12.20 **Fungal infections and the eye**
Prof Sue Lightman
Professor of Clinical Ophthalmology and Consultant Ophthalmologist, Institute of Ophthalmology and Moorfields Eye Hospital, London

12.50 **HIV and pregnancy**
Dr Graham Taylor
Senior Lecturer and Honorary Consultant, St. Mary's Hospital & Imperial College, London

13.20 ***Lunch***

Session 3 Chair: Dr. Harriet Hughes

14.20 **"Zoonotic Infections"**
Case Presentations
Expert Panel:
Dr Nick Beeching, Royal Liverpool University Hospital
Dr Marina Morgan, Royal Devon and Exeter Hospital
Prof Robert Wilkinson, Imperial College, London & University of Cape Town

1. **Do necrotising granulomas always equal TB?**
Davies J, Helliwell T, Miller ARO
Royal Liverpool University Hospital, Liverpool

2. **Haemorrhagic Fever with Renal Syndrome**
Jake Dunning, Michelle Willicombe, Jody Aberdein, Sanjay Bhagani & Mark Harber
Royal Free Hospital, London

3. **Exotic pets and practising vets – the perils**
Juliet Elvy, Terry Riordan, Marina Morgan
Royal Devon and Exeter Foundation NHS Trust, Exeter

4. **A Sweaty Butcher**
Michael Mina
Birmingham Heartlands Hospital

15.50 ***Coffee***

16.10 **Aberrant immunity: The HIV-tuberculosis immune reconstitution inflammatory syndrome (TB-IRIS)**
Prof Robert Wilkinson
Professor in Infectious Diseases, Imperial College London &
Honorary Associate Professor, University of Cape Town

16.40 **Zoonoses – Big game in the West Country**
Dr Marina Morgan
Consultant Microbiologist, Royal Devon & Exeter Hospital

17.10 ***Meeting close & Refreshments***

Abstracts

Trainees' Day
Manchester Conference Centre

Tuesday 11th September 2007

BRITISH INFECTION SOCIETY

Session 1: Chair – Lionel Tan

Title **Malaria and pregnancy**

Author David Lalloo
Address *Liverpool School of Tropical Medicine*

Abstract

Malaria infection in pregnancy has considerable potential consequences for both pregnant travellers and pregnant women living in endemic areas. Pregnant women are at greater risk of severe malaria or severe anaemia and placental infection is associated with low birthweight, premature labour and stillbirth. The clinical features and pathological mechanisms of malaria of pregnancy will be reviewed and the efficacy of interventions such as bednets and intermittent preventative treatment will be discussed. The challenges of advising the pregnant traveller and treating pregnant women with malaria will also be discussed

References

1. Whitty CJ, Edmonds S, Mutabingwa TK. Malaria in pregnancy. BJOG. 2005 Sep;112(9):1189-95

2. ter Kuile FO, van Eijk AM, Filler SJ. Effect of sulfadoxine-pyrimethamine resistance on the efficacy of intermittent preventive therapy for malaria control during pregnancy: a systematic review. JAMA. 2007 Jun 20;297(23):2603-16

3. Menendez C, D'Alessandro U, ter Kuile FO. Reducing the burden of malaria in pregnancy by preventive strategies. Lancet Infect Dis. 2007 Feb;7(2):126-35

BRITISH INFECTION SOCIETY

Title Chikungunya infection: clinical manifestations, management and the current epidemic

Author **Graham Lloyd**
Address *Health Protection Agency, Porton Down*

Abstract

Arthropod-borne viruses (arboviruses) are the causative agents of some of the most important emerging and re-emerging infectious diseases responsible for significant public health problems. Of these, a number of virus species that belong to the family Togaviridae and genus Alphavirus cause diseases that range from mild infectious illness to severe polyarthrities to encephalitis. One alphavirus, chikungunya virus (CHIKV), caused recent outbreaks associated with severe morbidity. Traditionally, CHIKV causes a febrile illness similar to that seen in dengue virus infections and which is part of the differential diagnosis in suspect cases. The hallmark feature of CHIK diseases is a debilitating and prolonged arthralgic syndrome that primarily affects the peripheral small joints. While the acute illness normally resolves within a few days the pain associated with CHIK infection of the joints typically persists for weeks or months.

Originally recognized in Tanzania in 1953 the virus appears to be enzootic across tropical regions of Africa and Asia. Transmission occurs via the vectors within the *Ae. furcifer-taylor* group of mosquitoes in Africa and the urban mosquito *Ae. aegypti* in Asia. From the 1960's to 2003 there have been frequent outbreaks in south-east Asia recorded. During 2005-2007 explosive epidemics on many islands in the Indian Ocean and more recently in India, have recorded cases of CHIK-associated deaths, encephalitis and neonatal infections. During this period there have been many imported cases detected in Europe predominately to the UK (150 +) and France (+700). This epidemic of Chikungunya disease, like West Nile epidemics in North America that began in 1999, has served as a reminder that laboratory and field research combined with epidemiological preparedness is essential for timely and appropriate public health responses and control measures.

BRITISH INFECTION SOCIETY

Session 2: Chair – Nikhil Premchand

Title **Epstein-Barr virus infection, persistence and role in cancer**

Author Paul Farrell
Address *Imperial College, London*

Abstract

Most of the world's population are infected by Epstein-Barr virus (EBV) and delayed primary EBV infection is the main cause of Infectious Mononucleosis. EBV is also involved in various types of cancer including nasopharyngeal carcinoma, African Burkitt's lymphoma, some transplant and AIDS lymphomas, about 30% Hodgkin's lymphoma and a small fraction of gastric carcinomas. People who have recovered from IM have an increased risk of developing EBV associated Hodgkin's lymphoma. Several factors determine the incidence of EBV associated diseases, including host genetics, coincident infections and environmental factors.

EBV is transmitted in saliva and then infects B lymphocytes. In cell culture this leads to outgrowth of transformed B cell lines called LCLs. Proliferation of these cells is maintained by various EBNA and LMP proteins expressed by EBV. In vivo these same EBV proteins allow the virus to transit through B cells to enter long lived memory B cells, where the virus persists. Viral gene expression and cell characteristics in certain stages of this journey resemble those of some of the cancers, suggesting that the cancers are aberrant consequences of the normal life cycle of the virus. The mechanisms of action of many of the EBV proteins required for transformation of B cells are becoming known.

All naturally occurring strains of EBV are classified into two main types (1 and 2) based on sequence variation of the EBNA2 gene. Type 1 strains are much more effective at transforming human B cell in culture. The EBNA2 transcription factor is required for B cell transformation and we are investigating the cell genes targeted by EBNA2, particularly differences between type 1 and type 2 strains, which might explain their different properties.

The EBERs are abundant small RNAs expressed by all tumour cells in an EBV associated cancer and might in principle provide a therapeutic target if we could discover what they do. We are therefore trying to identify their mechanism of action.

Similarly, if it were possible to understand how reactivation of viral lytic replication is caused, it might be possible to selectively kill EBV positive tumour cells by inducing this. We have therefore deduced the mechanism by which reactivation from latency is mediated in a lymphoma cell line that may mimic the natural reactivation that can occur as memory B cells are activated by antigen.

BRITISH INFECTION SOCIETY

Title **Fungal infections and the eye**

Author Sue Lightman
Address *Institute of Ophthalmology and Moorfields Eye Hospital, London*

Abstract

Fungi get in to the eye either exogenously or endogenously usually by haematogenous spread from a systemic source. This talk will concentrate on the diagnostic and management strategies for endogenous fungal ocular infections. With ocular sampling being of little help in determining the type of infection involving the eye, recognition of the clinical signs present is paramount. The blood – retinal barrier limits access of some drugs to the eye and this needs to be considerd together with the management of other ocular complications.

References

1. Sallam A, Lynn W, McCluskey P, Lightman S. Endogenous Candida endophthalmitis. *Expert Rev Anti Infect Ther.* 2006 Aug;4(4):675-85.

2. Lynn WA, Lightman S. The eye in systemic infection. *Lancet.* 2004 Oct 16-22; 364(9443):1439-50.

BRITISH INFECTION SOCIETY

Title **HIV and pregnancy**

Author Graham Taylor
Address *St. Mary's Hospital & Imperial College, London*

Abstract

The management of HIV infection in pregnancy differs according to maternal immune status, viral load, therapy history and wishes. Women on effective antiretroviral therapy at conception should usually remain on this therapy with the exceptions of co-administered stavudine and didanosine. The strength of the evidence that efavirenz may be associated with an increased risk of myelomeningocoele should be balanced by the gestational age at presentation of pregnancy, the half-life of efavirenz and the remaining therapeutic options.

Mode of delivery has only been examined in one randomised controlled study. This showed that pre-labour pre-rupture of membranes caesarean section (PLCS) is associated with an 80% reduction of transmission regardless of whether zidovudine monotherapy (ZDVm) or no antiretroviral therapy was prescribed[1]. A reduction in HIV mother-to-child transmission with PLCS despite combination antiretroviral therapy is suggested by cohort data[2]. In the RCT the transmission rate, regardless of HIV viral load, with ZDVm plus PLCS was less than 1%[1]. The transmission rate in a cohort of women on HAART was 1.2%. Both represent significant improvement compared with no intervention (19.5% – 20%). The efficacy of PLCS in women on HAART with <50 HIV RNA copies/ml plasma remains unknown.

Women with CD4 counts > 200 cells/μl and HIV viral load <10,000 RNA copies/ml plasma and willing to deliver by PLCS may be offered ZDVm from 28 weeks. If the viral load is higher and CD4 <250 cells/μ treatment with Combivir plus nevirapine started from 20 – 28 weeks gestation is preferred. If viral load is higher and CD4 >250 cells/μl Combivir plus a ritonavir boosted protease inhibitor is recommended[3].

Antiretroviral therapy in pregnancy is widely recognised to be safe, with minimal risks to the mother and baby. An increased risk of pre-term delivery (<37 weeks) and severe pre-term delivery (<34 weeks) with HAART has been reported in a number of studies[4,5]. HAART with a PI may carry more risk than nevirapine. Starting HAART in pregnancy regardless of maternal immune status may carry greater risk than HAART established before conception[6]. Pre-eclampsia is less common in women with HIV infection but the risk of pre-eclampsia is restored by HAART[7]. ZDVm is not associated with either pre-eclampsia or PTD[6,7].

References

1. The European Mode of Delivery Collaboration. Elective caesarian-section versus vaginal delivery in prevention of vertical HIV-1 transmission: a randomised clinical trial. *Lancet* **353**, 1035-1039 (1999).

2. European Collaborative Study. Mother-to-child transmission of HIV infection in the era of highly active antiretroviral therapy. *Clin Infect Dis* **40**, 458-465 (2005).

3. Hawkins,D. *et al.* Guidelines for the management of HIV infection in pregnant women and the prevention of mother-to-child transmission of HIV. *HIV Med* **6** , 107-148 (2005).

4. European Collaborative Study. Increased risk of adverse pregnancy outcomes in HIV-infected women treated with highly active antiretroviral therapy in Europe. *AIDS* **18**, 2337-2339 (2004).

5. Cotter,AM., Garcia,AG., Duthely,ML., Luke,B. & O'Sullivan,MJ. Is Antiretroviral Therapy during Pregnancy Associated with an Increased Risk of Preterm Delivery, Low Birth Weight, or Stillbirth? *J Infect Dis* **193**, 1195-1201 (2006).

6. Martin,F. & Taylor,GP. Increased rates of pre-term delivery are associated with the initiation of HAART during pregnancy: a single centre cohort study. *J Infect Dis* **196**, 558-561 (2007).

7. Wimalasundera,RC. *et al.* Is pre-eclampsia in HIV positive women treated with antiretroviral therapy a manifestation of immune reconstitution. *Lancet* **360**, 1152-1154 (2002).

BRITISH INFECTION SOCIETY

Session 3: Chair – Harriet Hughes

Title **Aberrant immunity: The HIV-tuberculosis immune reconstitution inflammatory syndrome (TB-IRIS)**

Author Robert Wilkinson

Address HIV service, GF Jooste Hospital, Manenberg, Cape Town, South Africa
Institute of Infectious and Molecular Medicine, University of Cape Town
Imperial College London, UK
National Institute for Medical Research, Mill Hill, London, UK

Abstract

The triple coincidence of very high TB rates, a rapidly spreading HIV epidemic, and large scale anti-retroviral roll out in Cape Town has led to a substantial increase in TB-IRIS cases presenting to our HIV service. TB-IRIS is an opportunity to study aberrant pathogen specific immunity, as there is consensus that TB-IRIS arises due to immune dysregulation induced by combined antiretroviral therapy (cART). It has been suggested that TB-IRIS is induced by an explosion of tuberculin specific Th1 responses (Bourgarit, A. *et al.* 2006 *AIDS* 20:F1-F7).

We wished to examine this hypothesis in greater numbers of people. Interferon-gamma ELISpot responses to PPD, *M. tuberculosis* H37Rv, ESAT-6, 38 kDa, and Acr 1 proteins were compared in 107 persons on combined treatment for TB and cART. 85 persons had TB-IRIS and 22 did not suffer this complication. Analysis indicates that expansion of the PPD specific Th1 response occurs irrespective of whether IRIS occurs ($p = 0.24$). Comparison of responses with those of a further 31 persons with untreated HIV-TB also indicates a substantial effect of anti-tuberculous drug therapy on Th1 responses, particularly an increase in response to Acr1 ($p = 0.003$).

Thus TB-IRIS is more complex than has been suggested. The antigenic stimulus best associated with expansion of Th1 responses in TB-IRIS patients was heat killed H37Rv ($p = 0.02$) raising the possibility that the T cell component in TB-IRIS is mediated by T cell subsets other than CD4 cells that recognize protein antigen.

Work supported by the Wellcome Trust, EDCTP and MRC (South Africa)

References

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2. Martineau, A. R., S. M. Newton, K. A. Wilkinson, B. Kampmann, B. M. Hall, N. Nawroly, G. E. Packe, R. N. Davidson, C. J. Griffiths, and R. J. Wilkinson. 2007. Neutrophil-mediated innate immune resistance to mycobacteria. *Journal of Clinical Investigation* 117:1988-1994

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BRITISH INFECTION SOCIETY

Title **Zoonoses – Big game in the West Country**

Author Marina Morgan
Address *Royal Devon & Exeter Hospital*

Abstract

Exeter seems to attract odd bugs, and has enough indigenous zoonoses in the wilds of Devon to keep us busy; Q fever, exotic animal bites, (lots of) Lyme disease, Bartonella, West Nile fever - to name a few.

Presentation, diagnosis and management of zoonoses from reptiles to wolves, with a few humanoses too will be included.

Some useful references
(I find clinical cases so much easier to assimilate, so as well as the standard references, I have included some "easy readers"!)

Brucellosis:

1. Noble JT and Mark EJ. Clinicopathological exercise: A 37-Year-Old Man with Unexplained Fever after a Long Trip through South America. *New Engl Med J* 2002;347:200-206

2. Dames S et al. Clinical problem solving series: Don't know much about history. *New Engl J Med* 2005;352:2338-42

3. Arlett PR. Grand Rounds Hammersmith Hospital. A case of lab acquired brucellosis. *BMJ* 1996;313:1130-2

Q fever:

Maurin M & Raoult D. Q fever. *Clin Microbiol Rev* 1999; 12(4):518-53 (free on the WEB)

Psittacosis:

1. Sax PE, Klein RS, Mark EJ. Clinicopathological exercise: Pneumonia and the Acute Respiratory Distress Syndrome in a 24-Year-Old Man. *New Engl J Med* 1998;338:1527 -1535

2. Chang KP & Veitch PC. Fever, haematuria, proteinuria and a parrot. *Lancet* 1997;350:1674

Ehrlichiosis:

Yawetz S and Mark EJ. Clinicopathological exercise: A 76-Year-Old Man with Fever, Dyspnea, Pulmonary Infiltrates, Pleural Effusions, and Confusion. *New Engl J Med* 2001;345:1627-1634

Traditional texts:

1. Zoonoses: Biology, Clinical Practice and Public Health Control. Palmer SR and Soulsby (1998). Oxford Medical Publications. ISBN 019262380X
   - one of the "reference bibles", a big book!

2. Zoonoses: Infectious Diseases Transmissible from Animals to Humans. Krauss H et al (2002). American Society for Microbiology. ISBN 1555812368
   - paperback, nice pics
   - easier to read and pretty inclusive!

Trainees' Abstracts

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BRITISH INFECTION SOCIETY

Title **Do necrotising granulomas always equal TB?**

Author Davies J[1], Helliwell T[2], Miller ARO[1]

Address [1]*Tropical and Infectious Diseases Unit,*[2] *Histopathology Department, Royal Liverpool University Hospital, Liverpool.*

Abstract

We present a 28 year old man who is normally fit and well. He was referred to the ID team via orthopaedics late on a Friday afternoon. The concern was that he had TB based on a histology report from a biopsy of a left thigh mass.

Clinical history was of a week of fever, night sweats and general malaise, which coincided with him noticing a painful, erythematous lump about the size of a grape in his left inner thigh, together with some left sided inguinal lymphadenopathy. He had no weight loss or respiratory symptoms.

He is a chef, born and bred in Liverpool, lives alone and had no travel history and no TB contacts. He is a smoker of 20/day and drinks 30 units of alcohol per week.

Examination was normal except for the mass on the left inner thigh. Routine bloods were normal, CXR normal, mantoux negative, USS and MRI of the lesion confirmed a mass with lymphadenopathy. Biopsy of the lesion was reported to show necrotising granulomatous inflammation highly suggestive of TB.

Is there anything else you would like to know?

Should we start TB treatment and send him home?

The case presentation will be interactive throughout and is illustrated by pictures, MRI images and histology.

This will be followed by a brief discussion of the salient points regarding the confirmed diagnosis and conclude with three main learning points.

BRITISH INFECTION SOCIETY

Title **Haemorrhagic Fever with Renal Syndrome**

Author Jake Dunning[1], Michelle Willicombe[2], Jody Aberdein[2], Sanjay Bhagani[1] and Mark Harber[2]

Address *[1] Department of Infectious and Tropical Diseases and [2] Department of Nephrology and Transplant Medicine, Royal Free Hospital, London*

Abstract

A 25 year-old man presented to his local hospital complaining of a one-week history of severe headache, fever, generalised myalgia, abdominal pain, diarrhoea and vomiting. He had arrived from the Slovak Republic, where he worked as a gardener, three weeks earlier.

Physical examination revealed a petechial rash over the axillae and ankles, and diffuse, mild abdominal tenderness. Initial routine laboratory tests revealed a normal white cell count and haemoglobin, but also marked thrombocytopenia, prolonged prothrombin time, mildly elevated C-reactive-protein, hypoalbuminaemia, hypocalcaemia, hyponatraemia, hypokalaemia and elevated creatinine and urea. Spherocytes, giant platelets of low number and left shift were seen on the blood film. Urinalysis demonstrated proteinuria and haematuria.

He received empirical third-generation cephalosporins, and intravenous immunoglobulin for presumed idiopathic thrombocytopenia, before being transferred to our tertiary centre for management of rapidly progressive acute renal failure. Abdominal ultrasound scanning was unremarkable. He developed anuria and required five days of haemodialysis. Renal biopsy histology demonstrated severe acute tubular damage with interstitial haemorrhage. IgG antibodies against both Hantaan and Dobrava viruses with high titres detected by ELISA, thus confirming the diagnosis of haemorrhagic fever with renal syndrome (HFRS), believed to be secondary to Hantavirus infection acquired in the Slovak Republic. The patient responded well to supportive care and was discharged on day twelve.

Hantavirus infection is acquired by inhalation of aerosolized virus or contact with urine, secretions or faeces of infected rodents and occurs worldwide. Seroprevalence and the pattern of infection vary greatly but HFRS should be considered in febrile syndromes presenting with acute renal failure, particularly in patients from rural areas.

BRITISH INFECTION SOCIETY

Title **Exotic pets and practising vets – the perils**

Author Juliet Elvy, Terry Riordan, Marina Morgan
Address *Royal Devon and Exeter Foundation NHS Trust, Exeter*

Abstract

Extra-intestinal infections caused by *Salmonella* species are rare but increasingly important. I will present two unusual cases which illustrate the wide range of infections caused by these enteric pathogens.

Case 1

An 11 week old female infant presented irritable with a fever. Her anterior fontanelle was full but not bulging. Lumbar puncture revealed CSF with 200 polymorphs, protein 0.58, and glucose 2.1. Gram negative bacilli were isolated after <12 hours which were later identified as *Salmonella enterica* subspecies *arizonae*, sensitive to cefotaxime, ciprofloxacin, gentamicin and imipenem. The same isolate was also recovered from blood cultures. On further questioning it became known that several snakes were kept as pets in the family household. She was treated for 3 weeks with IV meropenem (40mg/kg tds) with good response, however, two further admissions with pyrexia and irritability followed. During the 4th admission, 51 days after her initial presentation, salmonellae were again isolated from CSF. She was treated for 4 weeks with meropenem and ciprofloxacin and prior to discharge CSF was shown to be sterile. This case highlights the dangers of reptile associated salmonellosis in young children, in particular meningitis, and emphasises the significant risk of relapse despite adequate therapy.

Case 2

A 50 year old veterinarian attended an adult dairy cow with a dead calf in utero. Removal of the dead calf posed significant manual difficulty and gloves were not worn. After 36 hours, raised papules and pustules erupted over his forearms, consistent with folliculitis. A pus swab isolated *Salmonella* serotype Newport sensitive to cefotaxime, ciprofloxacin, gentamicin and imipenem. He was commenced on oral ciprofloxacin 750mg bd for 7 days with good resolution of the rash. There was no systemic upset so stool samples were not tested. This case demonstrates an interesting cutaneous manifestation of salmonellosis contracted via contamination from the cow's birth canal.

BRITISH INFECTION SOCIETY

Title A Sweaty Butcher

Author Michael Mina
Address *Department of Infectious Diseases, Birmingham Heartlands Hospital*

Abstract

A 38-year-old Australian male presented with a five day history of fever, rigors, severe headache, backache, lethargy, reduced appetite and a three day history of vomiting. He works as butcher in wholesale and handles meat directly from the abattoir where he frequently obtains puncture wounds from the bones of carcasses. He has an HIV +ve female partner, who was diagnosed positive 21years ago. They have unprotected vaginal sexual intercourse and his last HIV test was negative two months prior. He also had a professional tattoo two weeks earlier. He had had no vaccinations for Q fever.

On examination he had a temperature of 39.9^{o}C, was diaphoretic with mild photophobia and had mild epigastric tenderness with no organomegaly. He had no neck stiffness.

Laboratory investigations revealed normal total leucocytes with lymphopenia of 0.4, thrombocytopenia of 128 and abnormal liver function tests: ALT 148, AST 150, GGT 82, bilirubin and ALP were normal. CRP was elevated at 114 and ESR 6. A CSF examination revealed no cells, with a normal protein and glucose following a normal CT brain scan. Urine microscopy revealed 10-100 white and red cells, this was repeated three days later and there was persistent haematuria and >90% dysmorphic red cells. He was commenced on Doxycycline 100mg BD.

Serological testing on admission were all negative and included Q fever, Brucella, leptospirosis, hepatitis A, B and C, HIV, EBV, CMV, toxoplasmosis and Mycoplasma.

He began to defervesce the day after commencing Doxycycline but his liver function tests continued to deteriorate: bilirubin 61, ALP 530, GGT 342, ALT 536, AST 430. CRP went to 158 and ESR 12.

On day nine of his illness he developed right upper quadrant pains and tenderness. An abdominal ultrasound scan revealed marked hepatomegaly, spanning 18.7cm and acalculous cholecystitis with marked thickening and oedema of the gallbladder wall. He underwent a laparoscopic cholecystectomy. Histology revealed a diffuse infiltrate of lymphocytes, plasma cells and occasional neutrophils in the wall, suggesting an active chronic cholecystitis.

Repeat serology eleven days after admission revealed a Q fever complement fixation phase II antigen IgG titre rise from <4 to >256 and there was a rise in IgM titre. A serum sample of Q fever PCR on admission was positive and the gallbladder was also positive for Q fever PCR. The CSF Q fever PCR was negative.

He completed a two week course of Doxycycline 100mg BD and had no fevers after four days of admission. His liver function tests continue to improve: bilirubin 19, ALP 366, GGT 246, AST 69, ALT 179. His CRP came down to 5, ESR 11, platelets rose to 416 and lymphocytes to 4.3.

Biographies

Trainees' Day
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BRITISH INFECTION SOCIETY

Speakers

Dr David Lalloo
Reader in Tropical Medicine,
Liverpool School of Tropical Medicine

Dr David Lalloo is Head of the Clinical Research Group at the Liverpool School of Tropical Medicine and an Honorary Consultant at the Royal Liverpool University Hospital. Having undergone initial training in Newcastle upon Tyne, he trained in Infectious Diseases and Tropical Medicine, spending three years in Papua New Guinea. He undertook clinical and laboratory research in Oxford before moving to the Liverpool in 1999. He practices HIV and tropical medicine and is a member of the Steering Committee of the National Travel Health Network and Centre and the HPA Malaria Advisory Committee. His research interests include clinical trials in resource poor settings, particularly in HIV and malaria, and travel medicine.

Dr Graham Lloyd
Consultant Clinical Scientist
Special Pathogens Reference Unit,
Health Protection Agency, Porton Down

Consultant Clinical Scientist having 35 years experience in a wide range of clinical laboratory diagnosis and research microbiological settings within the UK and abroad, particularly involving detection strategies associated with ' Dangerous Pathogens (Viral haemorrhagic fever viruses, Arboviruses, *Coxiella burnetii* and Rickettsiae'. Experienced in the design, evaluation, operation, and maintenance and training requirements of high containment laboratories, according to the highest levels of safety and quality accreditation practice. Research interests have included the development of early detection systems; *in- vitro* and *in-vivo* models relating to microbial transmission, pathogenesis, and antimicrobial evaluation of a range of pathogenic microorganisms. During the past 20 years have been responsible for heading the National and International Reference and Diagnostic Laboratory identifying patients that have contracted a number of unusual infections caused by Arboviruses, haemorrhagic fever viruses, Rickettsiae and a range of Hazard group 3 bacterial pathogens including *Bacillus anthracis, Coxiella burnetii, Brucella spp. F.tularensis, Y.pestis* patient investigations. This laboratory is also designate WHO Collaborative Laboratory (Special Pathogens) and is part of the WHO Global alert. Represent the UK on the Global Health Security Action Group Laboratory Network and take the lead role in managing the laboratories membership of the CDC Laboratory Response Network. In recent years have designed, supported and initiated biosafety, special pathogens training courses for medical, clinical, biomedical and clinical scientists concerned with emergent and BT pathogens. Also an established lecturer on a number of graduate and post graduate medical microbiology courses in a number of Universities in UK and abroad.

BRITISH INFECTION SOCIETY

Speakers

Prof Paul J Farrell PhD FRCPath FMedSci
Professor of Tumour Virology,
Imperial College, London

Paul Farrell is Professor of Tumour Virology at Imperial College London. His current research is on the molecular biology of Epstein-Barr virus but he has a broad interest in tumour virology and the molecular biology of cancer. His early research on control of protein synthesis (with Tim Hunt and Richard Jackson) resulted in discovery of the phosphorylation of initiation factor eIF-2 and (with Peter Lengyel) he subsequently demonstrated biochemically some of the dsRNA dependent pathways that are induced by interferon. He also discovered the first interferon induced mRNA and protein. He then played a major role in the completion of the DNA sequence of Epstein-Barr virus in Fred Sanger's Department, which was a landmark in early sequencing. This was the first time that extensive gene structure was predicted just from sequence data. He subsequently became Director of the Ludwig Institute for Cancer Research Unit at St Mary's Hospital in London and spent many years obtaining data to create the genetic map of EBV and experimentally identified many of its important features. He also explored genetic changes in human cancer and altered p53 function in a series of publications. He has over 130 research publications. His research is now focussed on the mechanism of type variation in natural EBV strains, the functions of EBV genes expressed in human cancers that might provide therapeutic targets and the molecular mechanisms by which viral latency is maintained and viral reactivation occurs. He is an editor of Journal of General Virology and he currently serves on grant committees for Cancer Research UK and Leukaemia Research Fund.

Prof Sue Lightman
Professor of Clinical Ophthalmology and Consultant Ophthalmologist,
Institute of Ophthalmology and Moorfields Eye Hospital, London

Sue Lightman is the Professor of Ophthalmology at the Institute of Ophthalmology and Moorfields Eye Hospital. She trained first in medicine to the level of registrar and then switched specialities and trained as an ophthalmologist. She runs an inflammatory and infective eye disease service and has a particular interest in the ocular complications of systemic infections including HIV and fungaemia.

Dr Graham Taylor
Senior Lecturer and Honorary Consultant Physician
St. Mary's Hospital and Imperial College, London

Graduated from University of Birmingham in 1981 and trained in General Medicine in the West Midlands and South Wales before taking up a 3 year posting as Chief Medical Officer (Medicine) in the Solomon Islands. As a clinical research fellow at St Mary's Hospital I worked on the MRC Concorde and Delta Studies and developed the HIV Family, the HIV antenatal and the HTLV Clinics. Was appointed Senior Lecturer in Communicable Diseases at Imperial College in 2000. Have been a member of the BHIVA Pregnancy Guidelines writing committee since 1998, was a member of the WHO working group on Antiretroviral Drugs for Treating Pregnancy women and preventing HIV infection in infants: Towards universal access (2005-2006) and have been President of the International Retrovirology Association since 2005. Interests are the pathogenesis and treatment of HTLV-I infection and associated diseases - currently participating in therapeutic trials for HTLV-I-associated myelopathy and adult T-cell leukaemia; the safety and efficacy of antiretroviral therapy in pregnancy - pharmacokinetics and pharmacodynamics of antiretroviral therapy and the pathogenesis of Pre-term delivery.

BRITISH INFECTION SOCIETY

Speakers

Dr Nick Beeching,
Senior Lecturer and Honorary Consultant Physician
Royal Liverpool University Hospital

Nick Beeching was the President of the British Infection Society for the last three years. He is a senior lecturer and honorary consultant in Infectious Diseases and Tropical Medicine in Liverpool, and honorary consultant to the HPA. He completed undergraduate training in Oxford, before working in Birmingham, Australia, New Zealand and Saudi Arabia. He was previously Chair of the SAC for Infectious Diseases and Tropical Medicine and Secretary of Joint Speciality Committee of RCP / RCPath in Infection and Tropical Medicine, and now Member of Section of Infectious Diseases, UEMS. He was also previously a member of various PHLS / HPA advisory committees and currently Chair, Steering Committee for NaTHNaC (National Travel Health Network and Centre). He is actively involved in postgraduate medical education and was the previous Chair of London RCP Examination Board for the DTM&H.

Prof Robert J Wilkinson
Professor in Infectious Diseases, Imperial College London,
Honorary Associate Professor, University of Cape Town,
Consultant Physician, HIV service, GF Jooste Hospital, Cape Town &
MRC Programme Leader, National Institute for Medical Research, London

Robert J Wilkinson is a Wellcome Trust Senior Fellow in Clinical Tropical Medicine and Chair of Infectious Diseases at Imperial College London; and an MRC Programme Leader in the Division of Mycobacterial Research at the National Institute for Medical Research, Mill Hill, London. The bulk of his research is performed in Cape Town where he is Honorary Associate Professor (Medicine) and a volunteer Consultant Physician at GF Jooste Hospital, Manenberg. Wilkinson trained in Natural Sciences in Cambridge and Clinical Medicine in Oxford. After General Professional Training at the Hospital for Tropical Diseases and in Edinburgh, he undertook PhD training in Immunology at the Royal Postgraduate Medical School, Hammersmith Hospital, London and specialist training on the North West Thames rotational scheme. Wilkinson has held junior, intermediate and senior Wellcome Trust Fellowships and MRC, EU, Bill and Melinda Gates Foundation funding that have supported 14 years' research into tuberculosis. The research foci in Cape Town are the prevention and diagnosis of HIV associated tuberculosis, the HIV-TB immune reconstitution inflammatory syndrome, and the clinical consequences of strain variation in *Mycobacterium tuberculosis.*

Dr Marina Morgan
Consultant Microbiologist,
Royal Devon & Exeter Hospital

University of Liverpool graduate, 1985. Consultant medical microbiologist at Royal Devon & Exeter hospital, 1995. Interests: zoonoses, orthopaedic infections and toxin-driven necrotising skin and soft tissue infections including gas gangrene, Group A streptococcus necrotising fasciitis, and latterly PVL-staphylococcus associated infection.

BRITISH INFECTION SOCIETY

Chairs

Dr Lionel Tan
Trainee Representative, British Infection Society

Lionel is a second year Specialist Registrar in Infectious diseases and general internal medicine in London. His undergraduate training was at Cambridge and Barts and the Royal London hospital medical school. He has worked in London and Essex and also in Uganda as a lecturer in the Department of Medicine of Mbarara University of Science and Technology. He has a Diploma in Tropical Medicine and Hygiene from the Liverpool School of Tropical Medicine. His main responsibility on the British Infection Society Council is to organize the BIS trainees' meetings.

Dr Nikhil Premchand
Trainee Representative, British Infection Society

Nikhil is a third year Specialist Registrar in Infectious Diseases and general internal medicine in Newcastle. His has a degree in immunology from Edinburgh and completed his undergraduate medical training at Newcastle. He has worked in a number of hospitals in Newcastle. His main responsibility on the British Infection Society Council is to prepare the BIS newsletter.

Dr Harriet C Hughes
Trainee Representative, British Infection Society

Harriet is a second year Specialist Registrar in Infectious diseases and microbiology in Oxford. She completed undergraduate training in Cambridge and Oxford and has worked in a number of hospitals including Oxford, Nottingham and the Hospital for Tropical Diseases in London. Her main role on the British Infection Society Council is to represent trainees in Infectious diseases on the Specialist Advisory Committee (SAC), and the Joint Committee on Infection and Tropical Medicine.

British Infection Society
Trainee membership and trainee representatives

The British Infection Society actively encourages the participation of trainees within the Society, with three trainee members being elected to the Council every two years. Their roles are overlapping with some specific responsibilities.

Joint responsibilities

- Attend (up to) four council meetings a year, including one to coincide with the Spring Meeting of the BIS and one to take place at the Federation of Infection Societies Meeting in the winter.

- Contribute to and update the trainees' section of the BIS website.

Individual responsibilities

- Produce the BIS newsletter twice a year (Spring and Autumn)

- Organise trainees' meetings twice a year (Spring and Autumn)

- Responsibility for training issues including the following:
  - Attend meetings of the Infectious Diseases Specialist Advisory Committee (SAC) and Joint Committee for Infectious Diseases and Tropical Medicine Training meetings (4-6 per year).
  - Update trainees on relevant matters via the trainees' e-mail list and to keep the list up to date.
  - Respond to any other training issues that arise.

Trainee members of the BIS have the option of free membership with benefits that include trainees' meetings and the BIS newsletter.

For further information, please visit the trainees' section of the British Infection Society website at: www.britishinfectionsociety.org

British Infection Society
Spring Trainees' Meeting

Institute of Physics
76 Portland Place
London
W1B 1NT

Thursday, 8th May 2008

For a registration form please email bis@hartleytaylor.co.uk

BRITISH INFECTION SOCIETY

NOTES