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CORPORATE SPONSORS

ViiV Healthcare is a global specialist HIV company established in November 2009 by GlaxoSmithKline and Pfizer dedicated to delivering advances in treatment and care for people living with HIV. The company’s aim is to take a deeper and broader interest in HIV/AIDS than any company has done before and take a new approach to deliver effective and new HIV medicines as well as support communities affected by HIV.

RSTMH promotes and advances the study, control and prevention of disease in humans and other animals in the tropics and plays a leading role in increasing awareness throughout the world of tropical medicine and international health issues.

Throughout our international network of Fellows we facilitate training, education and exchange of information between clinicians, health-related scientists, to non-governmental development organisations and students across all disciplines in the fields of tropical medicine and international health.
Hepatitis C Masterclass

Session 1: Chair: Dr Fiona McGill

09.30 Epidemiology and burden of hepatitis C in the UK
   Dr Helen Harris
   Clinical Scientist Epidemiologist
   Public Health England

10.10 The prospects of a vaccine for hepatitis C
   Professor Paul Klenerman
   Honorary Consultant Infectious Diseases
   University of Oxford

10.50 Coffee

Session 2: Chair: Dr Thusan de Silva

11.20 Treatment options for hepatitis C: the current situation and what’s around the corner
   Professor David Mutimer
   Consultant Hepatologist
   University Hospital Birmingham

12.00 Case presentations by trainees
   1. Hepatitis C in pregnancy
      Dr Penny Clohessy
   2. Will I make it to the British Transplant Games doc?
      Dr Farnaz Dave
      Royal Hallamshire Hospital
   3. Acute hepatitis in HBV co-infection - is it the drugs?
      Dr Manuel Fenech
      Royal Liverpool University Hospital
   4. A vial of Alphabetti Spaghetti
      Dr Cristina Fernandez
      North Manchester General Hospital
   5. The impish cat vet almost developed liver inflammation
      Dr Oliver Harvey
      University College Hospital London
   6. Fulminant hepatitis after Rituximab - look out for the unusual suspects
      Dr Lucy Rivett
      Addenbrooke’s Hospital

13.00 Lunch

Practical Issues for Trainees

Session 3: Chair: TBA

14.00 Academic careers in infection - how to get one, how to keep one
   Professor Sarah Rowland-Jones
   Professor of Immunology
   Honorary Consultant in Infectious Diseases
   University of Oxford

14.40 How to get published and why bother anyway
   Dr Jenny Child
   Consultant Microbiologist
   Worthing Hospital

15.20 Coffee

Session 4: Chair: Dr Paul Collini

15.50 How to get (…and survive) your first consultant job
   Panel:
   Professor Sarah Logan, Consultant in ID
   Dr Susan Larkin, Consultant Microbiologist
   Dr David Partridge, Consultant Microbiologist (CCT ID/Med Micro)
   Dr James Dunbar, Consultant Acute Medicine

16.50 Trainees update
   Presentation of winner of case presentations
   Handover to new BIA Trainee representatives

17.15 Meeting close & refreshments
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<tr>
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Case Presentation 1

Title

Author Dr Penny Clohessy

Address

Cryptic Abstract

Case Presentation 2

Title Will I make it to the British Transplant Games doc?

Author Dr Farnaz Dave, Dr Michael Ankcorn, Dr Mohammed Karajeh, Professor Dermot Gleeson, Dr Alison Cope, Dr Lucy Cottle

Address Royal Hallamshire Hospital, Sheffield

Cryptic Abstract

We present a 78 year old male who has a background of hypertension and chronic kidney disease stage 3. He underwent liver transplantation in 1997 secondary to autoimmune hepatitis. Following transplantation he was started on ciclosporin and mycophenolate. In 2005 he underwent a right hemi-colectomy for caecal carcinoma (Duke’s C). During adjuvant chemotherapy immunosuppression was temporarily stopped. Subsequently he underwent a small bowel resection and ileostomy in 2006 secondary to ischaemic bowel. In 2011 routine bloods detected a transaminitis (ALT 148 IU/L, AST 67 IU/L, ALP 29 IU/L, GGT 23 IU/L with normal bilirubin). The patient was asymptomatic. A non-invasive liver screen, including serology for Hepatitis A, Hepatitis B, Hepatitis C, CMV and EBV, an autoantibody screen and immunoglobulins, did not reveal a cause. The transaminitis persisted with ALT levels fluctuating between 44 IU/L and 63 IU/L.
Case Presentation 3

Title Acute hepatitis in HBV co-infection - is it the drugs?

Author Dr Manuel Fenech

Address Royal Liverpool University Hospital

Cryptic Abstract

A 32 year old Nigerian born lady was admitted through GUM clinic RLUH having presented with a five day history of feeling unwell, nausea jaundice and dark urine. She has a background of HIV/HBV coinfection diagnosed in 2002 and followed up in London. Had PCP at her initial presentation with a nadir CD4 count of 35. She had difficulties with adherence, had been off her ART from 2010 till 2013. She re-entered into care 3 weeks back when she was started on abacavir, Boosted atazanavir and truvada based on her previous resistance tests where she had M184V and K103N.

On examination she was deeply jaundiced but systemically well with no signs of encephalopathy, abdomen was soft with a tender liver edge. Initial blood results showed ALT 720, Bilirubin 66, GGT 61, ALP 60, Albumin 32, INR 1.2, CD4 count rose from 17 to 129 over 3 weeks.

Case Presentation 4

Title A vial of Alphabetti Spaghetti

Author Dr Cristina Fernandez, Dr Libuse Ratcliffe

Address North Manchester General Hospital

Cryptic Abstract

A 35 year old Cameroonian gentleman was admitted to the Infectious Diseases department with a three week history of fever, poor appetite and weight loss. At presentation he has cervical lymphadenopathy and mild hepatomegaly. He is diagnosed with HIV, with a CD4 count of 14 (2%), and has chronic hepatitis B infection, with a viral load of 606948 copies/ml. Sputum and lymph node samples are smear positive for acid fast bacilli and subsequently grow *Mycobacterium tuberculosis*.

At presentation his liver function is mildly deranged, with an ALT of 43u/L, albumin 24g/L and normal bilirubin and INR. A fibroscan shows hepatic stiffness of 11.9kpa and an ultrasound is suggestive of widespread granulomatous infiltration of his liver and spleen.

He is started on antituberculous therapy (ATT), rifater, ethambutol and pyridoxine, as well as co-trimoxazole prophylaxis. Three days after commencing ATT he started antiretrovirals (ARVs), Truvada and Raltegravir.

On discharge, 3 weeks into ATT, his liver function is static with an ALT of 67u/L. On review 16 weeks after commencing ATT, he is acutely jaundiced. Bilirubin is 150umol/L, INR 1.5, Albumin 24g/L and ALT 253u/L. His Child Pugh score is 9 (Class B) and fibroscan shows a hepatic stiffness of 33.3kpa. He is admitted and causes for acute liver decompensation are investigated.
Case Presentation 5

Title The impish cat vet almost developed liver inflammation

Author Dr Oliver Harvey

Address University College Hospital London

Cryptic Abstract

A 27 year old man receiving Azathioprine and Adalimumab for treatment of extensive Crohns presented to hospital with a three week history of abdominal pain, malaise, headaches, fever causing drenching night sweats and unquantified weight loss. His most recent travel had been a trip to Morocco some two years prior to his presentation. He was married with a 6 month old son and had not come into contact with any unwell persons. On examination he was febrile with a tachycardia but haemodynamically stable. Abdominal examination revealed suprapubic tenderness but no organomegaly or generalised lymphadenopathy.

Blood tests revealed a lymphocytosis with a blood film demonstrating atypical lymphocytes. His liver function showed an ALP 94, ALT 117 with normal bilirubin and synthetic function An MRI of small bowel revealed 10cm of moderately active terminal ileal disease. Further blood tests including serology were requested.

Case Presentation 6

Title Fulminant hepatitis after Rituximab - look out for the unusual suspects

Author Dr Lucy Rivett, Dr Suzanne English, Dr Hongyi Zhang

Address Addenbrooke’s Hospital, Cambridge University Hospitals NHS Foundation Trust

Cryptic Abstract

A 67 year old Caucasian male presented with a 5 day history of loose stools and fever at his local hospital in August last year, following a holiday to France. He had a background of rheumatoid arthritis (RA), ischaemic heart disease and chronic obstructive pulmonary disease. He was on Rituximab for his RA, which he had last received one month prior to presentation.

On admission he was agitated, pyrexial (T>39°C), tachycardic and hypotensive. Clinical examination revealed no obvious source for his presumed sepsis. Supportive management was initiated with fluid resuscitation and broad spectrum antibiotics. Initial investigations revealed acute liver failure with an ALT of >2000 U/l and a noteworthy lymphopenia (0.5 10x9/L). An initial septic screen, including viral hepatitis serology, was negative.

The patient was transferred to Addenbrooke’s Hospital Intensive Care Unit. Computer tomography (thorax, abdomen and pelvis) and liver ultrasound imaging revealed atelectasis at the right lung base and small bilateral pleural effusions only. Further investigations revealed a significant adenovirus viraemia (positive at PCR cycle 10) by real time-polymerase chain reaction testing (rt-PCR). A throat swab was also positive for adenovirus by rt-PCR. All microbiological cultures were negative.
Title: Academic careers in infection - how to get one, how to keep one
Author: Professor Sarah Rowland-Jones
Address: University of Oxford

Abstract

Title: How to get published and why bother anyway
Author: Dr Jenny Child
Address: Worthing Hospital

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**Abstract**
British Infection Association

Case Presentation Answers

Title

Author Dr Penny Clohessy

Address

Full abstract with diagnosis
Full abstract with diagnosis

Diagnosis: Chronic Hepatitis E

Subsequent management and discussion:
Hepatitis E testing revealed IgM positive and IgG negative at initial presentation. Serological evolution to IgG positivity was demonstrated on a subsequent serum tested one month later. Viraemia was confirmed on initial testing and has persisted since. In view of the sustained elevation of ALT at 1.5 times the upper limit of normal, a Fibroscan was performed. The elastography score was 5.5 kPa. Liver biopsy was not undertaken. Interferon therapy was considered but the risks were felt to outweigh the benefits.

Considerations for management of chronic hepatitis E virus (HEV) include manipulation of immunosuppression and pharmacological treatment strategies. The case discussion will take the form of an interactive question and answer session, focusing on the diagnostic differential of acute transaminitis in an immunosuppressed patient, the changing epidemiology of HEV, prognosis of chronic HEV in transplant patients, treatment strategies, and progress towards preventative measures including vaccination.

Despite chronically deranged liver function tests and multiple co-morbidities, the patient remains clinically well and has managed to participate in the British Transplant Games at the age of 78! The British Transplant Games have been in existence since 1978. Since these early beginnings the competitors have been affectionately known as the “99 blooming miracles.”

Learning points:
• Hepatitis E epidemiology is incompletely understood and recent cases of autochthonous genotype3 infections have been reported in Europe, New Zealand and North America.1-5
• Chronic infection can develop and lead to cirrhosis in the immunocompromised patient.6,7 These infections have been associated with the consumption of game meat, mussels and pork8 and certain immunosuppressive agents9, such as ciclosporin in this case.
• This case exemplifies that clinical features of chronic HEV are often unremarkable in solid-organ transplant patients. Therefore, a high index of suspicion is required to establish the diagnosis.9
• Interferon and ribavarin have been used successfully to treat chronic HEV. Ribavarin is becoming the treatment of choice, despite the lack of randomized trials.10
• A safe and effective vaccine has been approved in China.11 Screening and vaccination prior to organ transplantation could be clinically effective, but may not be cost effective, given the current rarity of this disease.

Useful References:
Full abstract with diagnosis

**Diagnosis:** Hepatitis B IRIS

**Subsequent management and discussion:**
Differential diagnosis at this point included IRIS, drug-induced liver injury, a flare up of Hepatitis B, a second hepatitis viral infection including HCV, HDV, HEV, HAV or another opportunistic infection such as MAC, TB etc.

Her ART regimen was changed to truvada, raltegravir and abacavir. Her ALT and coagulation were followed closely and the gastroenterologists recommended NAC. A percutaneous liver biopsy was performed and showed acute hepatitis with confluent necrosis, lymphoplasmacytic infiltrate and hepatitis B surface antigen on orcein stain. This confirmed the diagnosis of Hepatitis B IRIS. ALT peaked at 3000 and improved over the subsequent 2 weeks and she was discharged to continue follow up in London.

**Learning points:**
IRIS is a common cause of deterioration in patients recently restarted on ART with an observed significant rise in CD4 count but the diagnosis is often done by ruling out other potential infective causes. Hepatitis B IRIS can cause fulminant hepatic failure particularly in patients with significant fibrosis and limited hepatic reserve.

**Useful references:**
- http://www.inshi.umn.edu/
Full abstract with diagnosis

**Diagnosis:** HIV Infection
Disseminated *Mycobacterium Tuberculosis* Infection
Chronic Hepatitis B infection, e antibody positive.
Chronic Hepatitis Delta Infection with delta flare

**Subsequent management and discussion:**
On admission to hospital his liver function continues to deteriorate and his ALT peaks at 485u/L. A magnetic resonance imaging of his liver shows splenic hypodensities consistent with tuberculosis. An autoimmune screen is negative and HIV and Hepatitis B viral loads are undetectable. He denies drinking alcohol. He never developed ascites or became encephalopathic

His ATT is stopped and septrin prophylaxis changed to dapsone. He is discussed with the regional liver unit who feel this is a drug related liver decompensation. ARVs are continued. Hepatitis delta IgM is equivocal but RNA is positive. Hepatitis E serology is negative.

He has a two-week hospital stay during which he is treated supportively and his liver function improves significantly.

At follow up he is clinically much improved. Both HIV and Hepatitis B viral loads continue to remain suppressed. His ATT was gradually reinstated according to BHIVA guidance 8 months after his acute liver decompensation. On starting his ALT was 107u/L and his Child Pugh score was 5 (Class A). He has now successfully completed 6 months of therapy.

His ALT continues to fluctuate between 100 and 160u/L and a repeat delta RNA is consistent with an increase in viral load.

**Learning points:**
- Antituberculous therapy does not commonly cause acute hepatitis late into treatment.
- A wide differential diagnosis for acute liver decompensation needs to be considered.
- Always consider Hepatitis Delta in Hepatitis B infected patients
- Sexually transmitted infections come in groups.

**References:**
British Infection Association

Title: The impish cat vet almost developed liver inflammation

Author: Dr Oliver Harvey

Address: University College Hospital London

Full abstract with diagnosis

Diagnosis: CMV Hepatitis

Subsequent management and discussion:
The patient’s serological tests revealed a positive EBV IgG, CMV IgM and IgG, whilst his CMV viral load was 2500 copies/ml with an avidity index of 0.308 indicating primary CMV in last 3 months. It was concluded that exposure to urine when changing his son’s nappies may have been responsible for his illness. It was hypothesised that the child may have acquired his CMV from breast feeding but raised the question of congenital cmv. The patient did not receive any anti-viral therapy and was discharged home after a short admission. Azathioprine and Adalimunab were withheld during the acute phase of his illness. The patient was seen in outpatient clinic one month after his initial presentation with resolution of his symptoms. A repeat viral load at that time was below the level of quantification and he was therefore restarted on his usual regime of immunosuppressive therapy.

Learning points:
This case was of interest as:
1. It raised questions about when you should treat primary CMV infection in patients with inflammatory bowel disease on immunosuppressants and when to manage conservatively. If managing conservatively then how long should one wait until reintroducing immunosuppressants.
2. How should one pursue investigating CMV in newborn and the repercussions of congenital CMV on hearing and development?
3. What role does CMV play in inflammatory bowel disease (IBD) both in terms of developing IBD as well exacerbating pre-existing disease.

Useful references:
Title: Fulminant hepatitis after Rituximab - look out for the unusual suspects

Author: Dr Lucy Rivett, Dr Suzanne English, Dr Hongyi Zhang

Address: Addenbrooke’s Hospital, Cambridge University Hospitals NHS Foundation Trust

Full abstract with diagnosis

Diagnosis: Disseminated Adenovirus Infection / Probable Adenovirus Hepatitis in the Immunosuppressed patient.

Subsequent management and discussion:
The patient rapidly progressed to multi-organ failure. Cidofovir treatment was recommended when adenovirus was confirmed, but unfortunately he died the same night. At this time it became apparent the patient had an adenovirus viraemia (positive at cycle 14) on initial presentation, five days prior.

Hepatitis is a rare complication of adenovirus infections, particularly in adults. One study reported an incidence of 2-4% in paediatric liver transplant patients (5). There are only two cases of adenovirus hepatitis following Rituximab therapy reported in the literature (1,2); one in a child.

Fever, malaise and diarrhoea are the most common presenting complaints, with the diagnosis of hepatitis not being immediately obvious. Lymphopenia is associated with severe adenovirus disease (4). Cidofovir is most effective as pre-emptive treatment during the period of asymptomatic viraemia. (3,4).

Addenbrooke’s Hospital is a major solid organ and haematopoietic stem cell transplant centre. We performed a review of all patients with adenovirus viraemia on rt-PCR between January 2009 and April 2014. Only 23 cases had concurrent impaired liver function. The described case was the only example of fulminant hepatitis attributable to adenovirus monoinfection.

Learning points:
There are an increasing number of patients being treated with immunomodulatory therapies. As such;
1. Rituximab therapy should be considered a risk factor for developing disseminated and fatal adenovirus infection.
2. Local haematology and solid organ transplant guidelines recommend regularly monitoring for cytomegalovirus, adenovirus and Ebstein Barr virus by PCR in patients receiving immunosuppressive therapies. Rheumatology departments should be encouraged to act similarly in patients receiving rituximab.
3. Local policies need to include poor prognostic factors, such as lymphopenia, in management guidelines and consider pre-emptive cidofovir treatment in asymptomatic adenovirus viraemia.
4. Communication between centres is essential to enable early, effective treatment to be commenced.

Useful references:
Dr Helen Harris
Clinican Scientist Epidemiologist
Public Health England

Biography here

Professor Paul Klenerman
Honorary Consultant Infectious Diseases
University of Oxford

Biography here

Professor David Mutimer
Consultant Hepatologist
University of Birmingham

Biography here
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Honorary Consultant in Infectious Diseases
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Dr Jenny Child
Consultant Microbiologist
Worthing Hospital

Biography here

Dr Sarah Logan
Consultant in Infectious Diseases

Biography here

Dr Susan Larkin
Consultant Microbiologist

Biography here
Dr David Partridge  
Consultant Microbiologist (CCT ID/Med Micro) 
Biography here

Dr James Dunbar  
Consultant Acute Medicine  
Biography here
Dr Fiona McGill  
Trainee Representative, BIA  
Fiona graduated from the University of Aberdeen in 2000. She moved South of the border one year later to take up an SHO rotation in Middlesbrough. After 2 and a half years there she pursued her interest in Infectious Diseases and took up a clinical fellow post in Newcastle-Upon Tyne. After a year in New Zealand and the diploma in tropical medicine she moved back to Newcastle-Upon-Tyne where she started her SpR training in Infectious Diseases as a LAT. Within the year she obtained a training number in the Yorkshire and The Humber region in ID and microbiology. Since April 2011 she has been out of programme working as a Clinical Research Fellow in the Liverpool Brain Infections Group with Prof Tom Solomon and his team working on an epidemiological study on meningitis in the UK.

Dr Thushan De Silva  
Trainee Representative, BIA  
I have taken over as the BIA trainee professional affairs secretary, although Fiona and I may share responsibilities between the two posts over the next 2 years. Having qualified from Bristol and completed SHO jobs in Oxford and London, I moved to Sheffield to take up a post as an SpR in Infectious Diseases/Microbiology. I have recently returned to Sheffield having taken time out to complete an MRC Clinical Research Training Fellowship based at the MRC Laboratories, the Gambia, working with HIV-1 and HIV-2 infected cohorts in the Gambia and Guinea Bissau.

Dr Paul Collini  
Trainee Representative, BIA  
Paul Collini is an MRC clinical training fellow in the department of Infection and Immunity of the University of Sheffield. Since 2006 he has been a clinical lecturer and honorary specialist registrar in Infectious Diseases and General Internal Medicine based at the Royal Hallamshire Hospital, Sheffield. Dr Collini qualified from Edinburgh University Medical School in 1998 and trained in general medicine at St George’s Hospital London. He was involved in the roll out programme for ARV in Africa, setting up and running an HIV-1 treatment clinic in Ghana from 2003-2005 while a clinical lecturer at the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. He is a fellow of the Higher Education Academy and lectures on the MPH and MBChB courses at the University of Sheffield. Dr Collini’s research interest is in the innate immune response to pneumococcal infection in HIV-1, with a specific focus on the role of the macrophage.
The BIA actively encourages the participation of trainees within the Society, with 3 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 BIA and one to take place at the Federation of Infection Societies Meeting in the winter.
- Contribute to and update the trainees’ section of the BIA website.

**Individual responsibilities**

- 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 keep the list up to date
  - Respond to any other training issues that arise

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

Any individuals interested in forming part of the training sub-committee please contact Fiona McGill at [fi.mcgill@googlemail.com](mailto:fi.mcgill@googlemail.com) or Thushan De Silva at [thushandesilva@hotmail.com](mailto:thushandesilva@hotmail.com)

For further information, please visit the trainees’ section of the British Infection Association website at: [www.britishinfection.org](http://www.britishinfection.org)

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**AUTUMN TRAINEES’ MEETING**

**Thursday 27th November 2014**

For further information or to register your interest for this meeting please contact [jo@hartleytaylor.co.uk](mailto:jo@hartleytaylor.co.uk)
British Infection Association

Delegates
British Infection Association

Delegates
British Infection Association

NOTES