Introduction Disseminated neonatal herpes is one of the deadliest perinatal infections with a reported mortality of 85% in the untreated neonate with early commencement of aciclovir reducing this to 30%. Timely recognition is often difficult because of the non-specific presentation which delays the initiation of aciclovir.

Case Series Report We report 3 cases of severe disseminated neonatal herpes (virology positive) seen in a year at our hospital with varying presentations and outcomes.

Case 1: A baby (born at 36+6 weeks by caesarean section) presented on day 9 with lethargy and reduced feeding whereupon a septic screen was completed with commencement of intravenous antibiotics. On Day 10, the baby developed severe hyponatremia resistant to treatment and was therefore referred to a tertiary hospital at day 12 where he developed liver failure and disseminated intravascular coagulation (DIC). Despite aggressive management the baby died at day 25. Aciclovir was only started at day 14.

Case 2: A 36+1 week baby born by caesarean section developed respiratory distress at day 4 of life with rapid deterioration and chest X-ray changes. The baby was ventilated and transferred to a tertiary centre where he developed severe shock, liver failure and DIC. Aciclovir was started on day 5 but the baby succumbed and died on day 6.

Case 3: A term baby born by normal vaginal delivery was admitted on day 9 with 2 day history of poor feeding, breathing difficulties and ulcer on the tongue. He was commenced on IV antibiotics and aciclovir. The bloods showed evidence of DIC and liver failure. The baby was transferred to a liver unit where he received intensive treatment for more than 1 month with gradual recovery following discharge.

Discussion Disseminated neonatal herpes presents in varying scenarios often with symptoms starting between day 4–9. Of the three cases only one was commenced on aciclovir immediately on admission who eventually survived. Early commencement of aciclovir is crucial in neonates presenting with poor feeding, vesicular rash, severe hyponatremia, oral ulcers, seizures, bleeding etc. after 4 days of life.

G593(P) CASE REPORT: AN UNUSUAL PRESENTATION OF RHEUMATIC FEVER IN A 3 YEAR OLD CHILD IN THE UK

¹TM Miller, ²DB Blundell, ¹YA Aung, ¹AK Kona, ^{3,4}ME Emonts. ¹Children and Young Peoples Department, West Cumberland Hospital, North Cumbria University Hospital Trust, Carlisle, UK; ²Paediatric Cardiology Department, Freeman Hospital, Newcastle upon Tyne Hospitals NHS FT, Newcastle upon Tyne, UK; ³Department of Paediatric Immunology, Infectious Diseases and Allergy, Great North Children's Hospital, Newcastle upon Tyne Hospitals NHS FT, Newcastle upon Tyne, UK; ⁴Institute of Cellular Medicine, Newcastle University, Newcastle upon Tyne, UK

10.1136/archdischild-2020-rcpch.510

We describe an unusual presentation of a 3-year-old to a UK District General Hospital with symptomatology initially thought to represent a viral illness, however, was subsequently diagnosed with acute rheumatic fever. The patient had a 6-week evolving presentation favouring the diagnosis which included a rash, followed by an elevated streptolysin titre and arthralgia, then finally a fever with an associated pan-systolic murmur. The difficulty with diagnosis was that these symptoms were occurring in a young patient over an extended period of time and acute rheumatic fever is rare in toddlers.

The young child was transferred to the local tertiary centre for further management; however, she went on to develop

acute left ventricular failure. Rheumatic fever can lead to rheumatic heart disease which can have long term health outcomes for patients such as demonstrated in this case report.

The district general hospital and the tertiary centre reviewed practice and discussed discrepancies around the diagnosis of this case. Following transfer to the tertiary centre, the team recalled the history and identified images that the parent had documented of a typical erythema marginatum rash; this was not visualised at the time of admission. This raised an interesting point around the power of digital imaging in today's practice for aiding diagnosis. Throughout the course of the condition the child's parent continued to raise concerns which was invaluable in obtaining the right diagnosis for the child.

Take-home messages

- Always be willing to re-evaluate diagnosis and listen to parental concerns
- This case illustrates the need to be vigilant for the presentation of rare illness as they can have a significant impact on the quality of life of young patients
- Digital imaging can play a vital role in diagnosis of serious diseases

G594(P) A CASE OF SUSPECTED GRISCELLI SYNDROME

¹AK Ndululu, ²A Migowa. Paediatrics, Aga Khan University Hospital, Nairobi, Kenya

10.1136/archdischild-2020-rcpch.511

Aims Primary immunodeficiencies are not often documented, but the prevalence in developed countries is estimated at approximately 1 in 1200. Lack of statistics on the Sub-Saharan African population leads to inappropriate management, poor quality of life and markedly reduced survival. This presentation aims to highlight the need for timely identification and early diagnosis of primary immunodeficiencies, hence improved care and survival of affected patients.

Methods A retrospective chart review of a patient who presented with a history of recurrent respiratory tract infections since the age of four months, often requiring inpatient care two to three times every year.

Results The history included infantile eczema and recurrent respiratory infections for which the patient had been on follow up at the pediatric pulmonology clinic. She also had global developmental delay and was being followed up at the pediatric neurology clinic. There was a history of widespread skin abscesses which resolved on treatment. At 6 years, she was non-verbal, could only walk short distances and was on home oxygen.

Examination revealed a dull looking, wasted child who was pale and had sparse, brittle, silvery hair, poor dentition, global hypotonia, reduced muscle bulk, and skin depigmentation with features of longstanding eczema. Weight for age was at the 3rd centile. She was saturating at 75% in room air and a chest CT scan revealed lower lung lobe collapse with a possible diagnosis of interstitial lung disease. Abdominal examination showed hepatomegaly. There were no murmurs on auscultation, but there was severe pulmonary arterial hypertension on echocardiography.

Given the frequent infections, skin depigmentation, silvery hair and global developmental delay, a diagnosis of suspected Griscelli syndrome was made. The patient passed away at the age of 6 years while on home care.

Conclusion There is need for more documentation of primary immunodeficiency disorders in order to empower clinicians to easily identify cases and offer prompt treatment.

G595(P) REAL-LIFE CLINICAL EFFECTIVENESS OF CIDOFOVIR IN TREATING SYSTEMIC PAEDIATRIC ADENOVIRUS INFECTIONS

C Devanahallinagaraj, S Kapoor, J Tang, A Price, J Bubbs, S Bandi, M Joshi. *University Hospitals of Leicester, Leicester, UK*

10.1136/archdischild-2020-rcpch.512

Aim To report the clinical effectiveness of cidofovir in real-life paediatric patients with systemic adenovirus (AdV) infections and identify the AdV serotypes in these patients.

Method Retrospective data extracted from clinical records in a tertiary UK paediatric hospital.

Results Three children admitted to Paediatric Intensive Care Unit (PICU) with systemic AdV infection were identified between January 2017 and August 2019.

Case 1: 8-year old girl with a background of developmental delay secondary to birth-related HIE (hypoxic brain injury). She had normal immunoglobulins, lymphocyte subsets and vaccination responses excluding immunodeficiency. She presented with an acute lower respiratory tract infection (LRTI) and had AdV detected in her blood, nasopharyngeal aspirate (NPA) and urine. Her blood AdV viral loads were 1.22 million copies/ml which dropped to 281 copies/ml after 3 doses cidofovir over 11 days.

Case 2: 14-year old girl with a background of immunodeficiency and non-cystic fibrosis bronchiectasis, known to Immunology team presented with LRTI. At the time of the AdV (serotype 7) infection, she had a genetically undefined combined immunodeficiency. Her initial AdV loads were 16.4 million copies/ml (blood) which dropped to 145 copies/ml after 3 doses of cidofovir over 14 days.

Case 3: 23-month old healthy boy presented with respiratory symptoms but deteriorated rapidly and was transferred to PICU on high frequency ventilation, but eventually required ECMO support (extra-corporeal membrane oxygenation). Despite extensive immunological investigations, no specific immunodeficiency was identified. His NPA was positive for AdV (serotype 7) and his blood AdV level was 34 million copies/ml. His AdV blood levels dropped rapidly to 50 copies/ml after 3 doses of cidofovir over the next 18 days along with intravenous immunoglobulin.

Conclusion AdV serotype 7 was identified in two of the three cases reported. Cidofovir treatment in our case series showed reduction in viral load and recovery. We noted no significant renal or hepatic impairment associated with cidofovir in any of the three cases. This case series highlights the use of cidofovir in paediatric population outside haemopoietic stem cell transplant and solid organ transplant recipients.

G596(P) BRAIN ABSCESSES AND SOCIAL DEPRIVATION IN CHILDREN 2001–2018

¹A Faulkner, ²A Battersby, ³F van der Velden, ⁴M Emonts, ^{2,4}E Lim. ¹Medical School, Newcastle University, Newcastle upon Tyne, UK; ²General Paediatrics, Great North Children's Hospital, Newcastle upon Tyne, UK; ³Paediatrics, Franciscus Gasthuis and Vlietland Hospital, Rotterdam, The Netherlands; ⁴Paediatric Infectious Diseases and Immunology, Great North Children's Hospital, Newcastle upon Tyne, UK

10.1136/archdischild-2020-rcpch.513

Background The area of the UK studied has a higher incidence of paediatric brain abscess (BA) than the national average (8.92 per million) but it is unclear why. 24% of all children in this area live in poverty rising to 30% in the city itself above the national average of 20%. We hypothesized that the increased incidence of brain abscesses was associated with social deprivation. Associations between deprivation and meningococcal disease and bacterial infections have been found both in the UK, Europe and the US.

Aims To examine the sociodemographic characteristics and identify any associations between social deprivation and incidence of paediatric brain abscesses.

Methods This was a retrospective cohort study. Data was examined from 115 confirmed cases of brain abscesses in children and young people aged 0–16 years admitted to our tertiary hospital between 01/01/2001 and 31/12/2018. All children from the region were referred to this tertiary neurosurgical service. Patient information was collected from patient notes or from an established database.

Patients' postcodes were linked to data from The English Indices of Deprivation 2015, which is the official measure of relative deprivation for small areas in England. This included the index of multiple deprivation, Income Deprivation Affecting Children, employment, education, health crime, barriers to housing and services and living environment deprivation. Data for brain abscess incidence and patient outcomes was plotted against deprivation indices.

Results Brain abscesses were over thirty times more common in the most deprived centile compared to the least. BA frequency was found to have a positive relationship with 'Health' and 'Income' deprivation.

Conclusions Our findings suggest that the incidence of brain abscesses may be associated with social deprivation in children and young people. More research is required to establish which parameters of social deprivation are most significant and to confirm this in subsequent studies

G597(P) ABSTRACT WITHDRAWN

G598(P) ABSTRACT WITHDRAWN

G599(P) DESIGN AND IMPLEMENTATION OF A DATABASE FOR REAL-TIME REPORTING AND ANALYTICS OF PAEDIATRIC ALLERGY OUTPATIENT CLINIC ATTENDANCES AND OUTCOMES IN THE NORTH WEST OF ENGLAND AND NORTH WALES

¹D Denaxa, ¹A Ghattamaneni, ²S Dixon, ²L Niland, ³P Arkwright, ³C Lumsden. ¹Paediatric Allergy and Immunology, Royal Manchester Children's Hospital, Manchester, UK; ²NWAPN, Royal Manchester Children's Hospital, Manchester, UK; ³NWAPN and Manchester University, Royal Manchester Children's Hospital, Manchester, UK

10.1136/archdischild-2020-rcpch.514

Aim Outpatient workload for paediatric specialities across a region, let alone within a specific centre is usually difficult to gauge. We aimed to develop an online database for recording and assessing workload in real-time.