G320(P) POST-MALARIA NEUROLOGICAL SYNDROME: THE FIRST IRISH PAEDIATRIC CASE

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Aims Post-malaria neurological syndrome (PMNS) is described as a rare post-infectious encephalopathy occurring within two months of resolved malaria infection and with an aparasitaemia. PMNS encompasses three separate neurological syndromes: A delayed cerebellar syndrome, an acute demyelinating polyneuropathy (GBS) and an acute disseminated encephalopathy (ADEMs).

Here, we report the first Irish paediatric case of falciparum PMNS, in a patient of African origin, born and living in Ireland.

A 15 year old boy presented with a 3 day history of progressive encephalopathy, features of raised ICP and seizures on a background of falciparum malaria treated six weeks previously. PMNS was diagnosed after further investigations and an aparasitaemia. He was sedated and intubated for 2 days and commenced on antimicrobials, antimalarial and steroids. His investigations results as following: MRI brain: Cerebral oedema and optic neuritis, EEG: Severe encephalopathy. Serial thick and thin films: No malaria parasites Falciparum Protein Antigen (RDT): Positive (Can remain positive for 6 weeks after malaria). CSF Studies: Protein 1383 g/dl, 16 WBCs/dl, 100% mononuclear cells). PCRs: negative for HSV, Adenovirus, Coxsackie, EBV, CMV, Meningococcus, Pneumococcus.

By day 6 of admission he had made a full recovery with no neurological deficits.

Methods Using Google and PubMed, we searched for relevant case reports and journal articles describing neurological syndromes occurring post infection with falciparum malaria in the paediatric population.

Results Whilst the prevalence of PMNS (plasmodium falciparum) is 0.12% in adults, the prevalence in children remains unknown. In 1996, a Vietnamese study conducted over 4 years reported 23 patients with PMNS following full recovery from falciparum malaria. Of these, only 3 were children. A 2015 case report describes a further two children with falciparum PMNS. There have been no further paediatric cases reported to date worldwide.

Conclusion In conclusion, PMNS is an increasingly recognised, but rare complication of malaria that must be differentiated from relapsing or recurrent malaria, and post-infectious neurological syndromes, e.g. ADEM. In particularly severe cases, steroids have been given as an adjunctive therapy to speed recovery however PMNS is a self-limiting condition that resolves within 2–14 days and requires no specific treatment.

G321(P) SPONTANEOUS REMISSION OF EPILEPSY IN A CASE OF MESIAL TEMPORAL SCLEROSIS

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Background Mesial temporal sclerosis (MTS) is commonly referred to as hippocampal sclerosis (HS), is the most

common association with intractable temporal lobe epilepsy. The typical MRI features of hippocampal sclerosis, are unilateral volume loss and increased signal intensity on T2-weighted images. There is no sex or side preference and a proportion of cases are bilateral. Macroscopically the hippocampus is firm and shrunken. Microscopic findings include a characteristic pattern of neuronal loss and reactive gliosis that varies in severity from case to case. Mesial temporal sclerosis is an uncommon finding in children, but when it occurs, it is always associated with epilepsy. Mesial temporal sclerosis is the most frequent cause of drug-resistant temporal lobe epilepsy but has a satisfactory response to surgery, and is considered infrequent in children.

Patient Characteristics: 13 year old girl, she was born at 41 week of gestation with an uneventful antenatal history. She was ventilated at birth and also treated for streptococcal meningitis. She developed seizures during this treatment period. She didn't require antiepileptic at discharge. No developmental concerns. She presented with focal seizures at the age of 3 years. Had further seizures, about one or two a year, up to the age of 6 years. Eye deviation to right side, abnormal mouthing movements, disoriented, confused, vacant, lip smacking lasting for 10 min followed by headache and vomiting with post ictal phase for two hours. She remained seizure free for the past 6 years. She was not commenced on any medication.

Investigations EEG at the age of 5 years shown clustered spike epileptiform discharges focal in the central, temporal and occipital area.

MRI scan – MRI brain scan showed dilatation of the left temporal horn with left mesial temporal sclerosis.

Conclusion This is a case of mesial temporal sclerosis with spontaneous remission of epilepsy. It is extremely unusual for mesial temporal sclerosis to be spontaneously seizure free. Pathophysiological mechanism of epilepsy in mesial temporal sclerosis is not fully understood. Further imaging and pathological studies comparing similar cases against the usual MTS with drug resistant epilepsy might lead to find clinically useful indicators.

G322(P) NOT BELL'S PALSY ANYMORE? LYME DISEASE (LD) UNTIL PROVEN OTHERWISE

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Aims Lyme Borreliosis (LD) is becoming increasingly prevalent across parts of the UK. Recent evidence suggests that LD is the commonest cause of lower motor neuron type facial palsy (LMN FP) in children and adults in the USA. Historically, idiopathic LMN FP, termed Bell's palsy, was given as the commonest cause in the UK, we discuss whether current evidence suggests otherwise.

Methods We report 2 cases of LMN FP seen over an evening shift, which were subsequently serologically confirmed cases of LD. We also reviewed current literature and surveillance data.

Results LD is an infectious disease caused by the spirochaete *Borrelia burgdorferi*. It is the most common tick-borne infectious disease in the UK and is becoming increasingly prevalent in certain areas, affecting around 9.8/100 000, a figure that continues to rise. The presenting features are often non-

specific in children, with Erythema Migrans being the commonest presenting feature which is often missed as a heralding sign. Two children presented with LMN FP who we treated empirically for LD with Amoxicillin with subsequent results confirming the diagnosis. One was a holiday maker from an area not reported to have Lyme disease and the second child was on holiday in Republic of Ireland with known prevalence of Lyme disease. Both children presented to medical services in the preceding days with a rash and one with unilateral facial swelling (with development of LMN FP on same side). It is thought that up to fifty percent of facial Palsy in Children may be as a result of LD.

Conclusion Our findings confirm that LD is increasingly more common in the UK and should be considered as the most common cause of LMN FP. Symptomatic LD is potentially progressive with long term consequences. We propose empiric treatment of all cases of LMN FP with Amoxicillin or Doxycycline whilst awaiting serological confirmation of LD. In addition, clinicians should be considering LD much earlier in the differential of children presenting with a LMN FP.

G323(P) A CASE OF SHINGLES WITH NO HISTORY OF CHICKEN POX

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Introduction Herpes Zoster Ophthalmicus (HZO) is a specific form of shingles that affects the dermatome of the ophthalmic nerve. It can have serious sequelae including permanent visual loss if there is ocular involvement.

Case report A 20-month-old child presented to the Paediatric Assessment Unit with a vesicular rash on his left forehead, and with swelling around the left eye. He had been treated with Flucloxacillin for impetigo, however this had failed to resolve the rash. He was apyrexial, passing urine and stool normally but had decreased oral intake. On examination the rash was restricted to the territory of the left ophthalmic nerve. The left eye was swollen with a yellow discharge and could not be opened. Swabs from the eye, and of the vesicular fluid were sent for bacterial culture and viral PCR. Initial bloods, including FBC and CRP, were normal, with no evidence of systemic infection. A diagnosis of HZO was made, based on the clinical findings, and the child was commenced on IV Aciclovir, IV Co-Amoxiclav, and Chloramphenicol eye drops. The following day the child had developed a fever and was tachycardic and tachypnoeic; the antibiotics were converted into Ceftriaxone. Varicella zoster IgG was found to be positive suggesting past infection. Ophthalmological opinion was sought to rule out ocular involvement. They found the child to be Hutchison's sign negative and agreed with the diagnosis of HZO without ocular involvement. The child received 7 days of Aciclovir, 7 days of antibiotics and 14 days of Chloramphenicol eye drops. The bacterial culture later isolated *Moraxella catarrhalis*, and the viral PCR confirmed Varicella zoster DNA.

Learning points Asymptomatic chickenpox is uncommon, although mild cases may be missed. Chickenpox infection can occur in utero and can cause scarring, neurological and ophthalmic complications, or the baby can be asymptomatic and present in early life with shingles. Accurate diagnosis is important to prompt early management. Examination of the eye

with Ophthalmological input is important to rule out or manage ocular involvement. Hutchison's sign indicates nasociliary branch involvement increasing the likelihood of ocular sequelae.

G324(P) CHILDHOOD STROKE DUE TO CEREBRAL ARTERIOPATHY; A PANDORA'S BOX?

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Aim Stroke is an acute neurologic deficit that results from an ischaemic or haemorrhagic cerebral vascular event, persists for at least 24 hours, and results from a disturbance of the cerebral circulation. Childhood stroke is not common, but leads to significant morbidity and mortality. It is among the top ten causes of death in childhood. Stroke mimics are much commoner which make the diagnosis more challenging. We describe an intriguing case for which a wide array of tests has not revealed the precise aetiology.

Methods The clinical, laboratory and radiological data were reviewed.

Results A 3-year-old girl, only child of non-consanguineous Polish parents presented with marked altered level of consciousness preceded by upper respiratory tract infection. Examination revealed non-reactive pupils without focal neurological signs. Electroencephalography demonstrated diffuse encephalopathy. She was managed for probable encephalitis. There was clinical deterioration evident by headaches, an episode of focal seizure with subsequent right sided hemiparesis. Serial magnetic resonance image (MRI) and angiography (MRA) of the brain revealed diffuse abnormality of intracranial vessels with attenuated calibre of intracranial vessels and bilateral watershed infarcts. There was visual loss without evidence of optic neuritis. Metabolic, coagulation, autoimmune, infection, extracranial imaging and available genetic screen have been normal so far. Fluctuating blood pressure has remained a challenge in her management. She is being managed on immunosuppressive, antiepileptic, antihypertensive and antithrombotic agents. Multidisciplinary team follow-up is ongoing. Follow-up brain MRI and MRA (at five months) confirmed stable bilateral infarcts and vessels appearance.

Conclusion Cerebral arteriopathy has been recognised as a major risk factor for arterial ischaemic stroke in children. It may develop in a previously healthy child without any known risk factors. However, recent upper respiratory tract infection has been shown to be a significant predictor of underlying arteriopathy.¹ The risk of recurrence in this case remains uncertain.

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G325(P) AN EVALUATION OF OUR LOCAL PAEDIATRIC EPILEPSY SERVICES

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