was undertaken to review the evidence of interactions between cannabis-based medicinal products and other ASMs.

Methods A search of Cochrane, Pubmed and Embase from January 2015 to April 2020 was performed. All original research papers investigating interactions between cannabidiol and ASMs were included. Bibliographies of review articles were searched to identify further papers. Adverse events and side effects were excluded.

Results Thirty studies (eighteen observational cohort studies, two randomised-control trials, three case reports/series, three animal studies, two briefing reports, an analysis of cohort data and a clinical trial simulation) were identified. Pharmacokinetic interactions were identified between CBD and clobazam, rufinamide, zonisamide, stiripentol, sirolimus/everolimus, eslicarbazepine, brivaracetam, potassium bromide, tiagabine and gabapentin. Pharmacodynamic interactions were identified for clobazam, valproate and levetiracetam. There is further contention regarding whether pharmacokinetic interactions are present with topiramate, oxcarbazepine, lacosamide, phenobarbital and pregabalin. An animal study identified that the brain concentration of ASMs may alter while the serum concentration remains the same.

Conclusions The studies to date suggest a number of possible interactions between CBD and ASMs. Possible mechanisms include alterations in metabolism through cytochrome p450. The existing literature is limited for some ASMs, with studies having relatively small cohorts. As increasing numbers of patients use cannabidiol, clinicians need to monitor closely for interactions clinically and with blood levels when needed.

G52(P) TYPE I CHIARI MALFORMATION IN TWO SIBLINGS: SYNCOPES, THE PRESENTING FEATURE

¹MBKC Dayasiri, ¹S Kodagali, ¹N Weerapperuma, ¹E Goh, ²S Magdum, ¹G Anand. ¹Paediatrics, Oxford University Hospital, Oxford, UK; ²Paediatric Neurosurgery, Oxford University Hospital, Oxford, UK

10.1136/archdischild-2020-rcpch.38

Introduction Type I Chiari malformation is descent of the cerebellar tonsils into the cervical canal and is usually not associated with hydrocephalus. Although many affected children are asymptomatic, presenting features can include headaches, ocular disturbances, otoneurologic disturbances, lower cranial nerve signs, cerebellar ataxia, or spasticity. Chiari drop attacks/syncope as a presentation is not widely recognised and through this report we attempt to highlight this feature.

Case Report The reported children were born to consanguineous parents yet with an uncomplicated antenatal period. Both children had age appropriate development. The elder sibling presented at 11 years of age with repeated episodes of collapse. She had headache for the preceding three years. There was no history of paraesthesia, blurred vision, tinnitus, vomiting, clumsiness, neck pain or any shooting pains down her back and legs. Neurological examination was normal. MRI Brain revealed 8 mm herniation of the cerebellar tonsils through the foramen magnum consistent with a Chiari 1 malformation. There was no evidence of cervical and upper trans-thoracic syrinx or hydrocephalus. She was managed conservatively with regular follow up.

The younger sibling first presented at 2 years of age repeated episodes of drowsiness and sweating as the first event in morning which was attributed to ketotic hypoglycaemia. However, she presented at 6 years of age with a

syncopal episode lasting for a minute which happened as she was jumping on a bed. Neurological examination was normal. MRI brain revealed Chari I malformation with significant tonsillar herniation (more than 1.6 cm up to the C2 vertebra in the neck) which was causing significant congestion at the foramen magnum needing urgent neurosurgical decompression.

Conclusion This report highlights importance thorough evaluation of syncope/drop attacks in children as it could be rarely a presenting feature of Chari 1 malformation. The aetiology of Chari I malformation in these children is likely genetic with autosomal recessive inheritance given the parents were consanguineous and both children were affected.

G53(P) PAROXYSMAL KINESIGENIC DYSKINESIA; A DIAGNOSTIC CHALLENGE TO THE GENERAL PAEDIATRICIAN

MBKC Dayasiri, N Weerapperuma, J Wright, G Anand. Department of Paediatrics, Oxford University Hospital, Oxford, UK

10.1136/archdischild-2020-rcpch.39

A ten-year old girl presented with a month's history episodic facial and limb movements. She had a normal neurological examination and based on video evidence, she was thought to have complex tics. Anxiety was reported as being a trigger. Unusually, these 'tics' were not directly witnessed during hospital visits. Eighteen months after initial presentation, the clinician subsequently observed dystonic posturing after the child stood up from having been seated in a chair. Paroxysmal kinesigenic dyskinesia (PKD) was then suspected and confirmed with genetic testing. She was successfully treated with carbamazepine. Retrospectively, it was evident that her anxiety was related to a fear of uncontrolled movements, rather than it being a trigger.

The abnormal involuntary movements in PKD are precipitated by sudden voluntary movement. Lack of recognition of this typical feature, normal examination, and/or features such as anxiety can lead to misdiagnosis or delayed diagnosis of this easily treatable condition.

G54(P) DISABILITY AND VISUAL OUTCOMES FOLLOWING ABUSIVE HEAD TRAUMA (AHT) IN CHILDREN UNDER 2 YEARS

¹J Wright, ²S Painter, ¹S Kodagali, ¹N Jones, ¹S Jayawant, ²J Elston, ¹G Anand. ¹Department of Paediatrics, Oxford University Hospitals NHS Trust, Oxford, UK; ²Department of Ophthalmology, Oxford University Hospitals NHS Trust, Oxford, UK

10.1136/archdischild-2020-rcpch.40

Aim The primary objective was to report immediate and long-term disability outcomes in children following an abusive head trauma (AHT) aged less than 2 years. The secondary objective was to report visual outcomes.

Methods A retrospective study that identified children from the Ophthalmology Department's database of children examined for suspected AHT, between 1995 and 2017. Children were included if they were aged 24 months or less, with no pre-existing visual or developmental problems, and if their injury was confirmed as a result of AHT. This was determined by the conclusion of the local Multi-Disciplinary Team. Ethical approval was obtained.

KOSCHI (King's Outcome Score of Head Injury) was used to assess disability outcomes at discharge from hospital and at long-term follow up. A retinal haemorrhage score (0 to 16) recorded extent of retinal injury. Visual function (normal, visual impairment, no functional vision) was assessed at follow up.

Results Total of 44 children (25 male 19 female) with a median age of 16 weeks. Subdural haemorrhage was seen in 98% (37% bilateral); 56% had additional injuries on skeletal survey. At discharge, 5% children had died (KOSCHI 1) or were in vegetative state (KOSCHI 2); 61% showed features of moderate to severe disability (KOSCHI 3 & 4); 34% had a 'good or full recovery' (KOSCHI 5). At long-term follow-up, 14% showed a worsening of their KOSCHI score. This resulted in overall outcomes of 71% disability and 29% full recovery, at a mean age of 5.3 years. Retinal haemorrhages were present in 93%, 88% bilaterally (mean score 8). At follow-up, visual impairment was present in 31%, 7% of whom had no functional vision.

Conclusion AHT continues to give rise to significant morbidity; this cohort showed a worsening of disability score at long-term follow-up. This indicates disability severity may not be fully appreciated at discharge from hospital, impacting on both provision of accurate prognostic information and in applying targeted follow-up. Visual impairment was more severe in those with a higher retinal haemorrhage score, as might be expected in more extensive injury. As there are few visual outcome studies, this adds to the evidence base, and we would promote that services should ensure visual function is optimised.

G55(P) ANTIPHOSPHOLIPID SYNDROME SHOULD BE CONSIDERED AS A POSSIBLE CAUSATIVE FACTOR IN STROKE IN CHILDREN WITH DOWN'S SYNDROME

R Bhatt, S Ramdas. *Neurology, John Radcliffe Children's Hospital, Oxford, UK*

10.1136/archdischild-2020-rcpch.41

Method A three year old girl with Down's syndrome presented to her local DGH with a dense right sided hemiparesis and impaired speech. MRI brain showed an acute left MCA territory stroke with possible multiple events and vascular imaging (MRA) was suggestive of carotid dissection. The time of onset of her symptoms was unclear as she had been unwell with gastroenteritis the previous few days; therefore she was not a suitable candidate for thrombolysis. Investigations done as part of the RCPCH stroke guideline identified positive antibodies to beta2-glycoprotein and cardiolipin raising the possibility of antiphospholipid syndrome. She was initiated on low molecular weight heparin, repeat anticardiolipin and beta2-glycoprotein at three months remained elevated therefore confirming the diagnosis of antiphospholipid syndrome.

Result It is well recognized that patients with Down's syndrome are predisposed to autoimmune conditions, however the association with antiphospholipid syndrome is lesser well known and documented. There are four previous cases reported in literature, but only two children aged 6 years and 11 months at the time of the thrombotic event.

This case report highlights the importance of thinking laterally and considering dual pathology as a possibility in particular when a clear history is not available regarding onset of symptoms. Despite initial investigations clearly providing an

aetiology for the stroke i.e. carotid artery dissection in our case, it was imperative to not cease at this point in the diagnostic process. Antiphospholipid syndrome is a lifelong condition requiring long term anticoagulation treatment in order to prevent the debilitating impact of recurrent thromboembolic events such as stroke, DVT and recurrent miscarriages later in life. Therefore, early recognition of this condition in Down's syndrome patients who present with stroke may have the potential to prevent life-long disability.

G56(P) NEUROPSYCHIATRIC PRESENTATIONS OF SYDENHAM'S CHOREA IN THE UK

¹N Mushet, ²M Morton, ^{2,3}M Punukollu, ²H Minnis, ^{2,4}C Gillberg. ¹CAMHS, Northumberland, Tyne and Wear NHS FT, Newcastle, UK; ²Institute of Health and Well-being, University of Glasgow, Glasgow, UK; ³CAMHS, NHS Greater Glasgow and Clyde, Glasgow, UK; ⁴Department of Child and Adolescent Psychiatry, University of Gothenburg, Gothenburg, Sweden

10.1136/archdischild-2020-rcpch.42

Sydenham's chorea (SC), a post streptococcal, autoimmune, neuropsychiatric movement disorder, remains the most common cause of chorea worldwide affecting children aged 5–18 years. SC may be the only manifestation of acute rheumatic fever at first presentation, with the implication of potential sequelae, including cardiac complications. SC is rare in UK and a cluster of cases offered an opportunity to examine the course of the disorder.

Aims Patients with a neurologist's diagnosis of SC, referred to Liaison Psychiatry, were interviewed to determine lifetime prevalence of developmental and psychiatric disorders and describe symptoms at onset and relapses of SC and service use.

Methods Subjects, age under 18, identified from psychiatric referral records, were invited with their parent(s) to an interview to establish medical and family history, with construction of a detailed time-line of physical and psychiatric symptoms alongside a child/parent semi-structured, validated, psychiatric diagnostic assessment interview, (KSADS- PL) to explore current and most severe past episode of psychopathology and brief examination with a chorea rating scale.

Results 12/16 (75%) of referred children, 7 girls, 5 boys, age at interview 10–15 (average 14) attended. Findings highlight pre-existing neuro-developmental vulnerability (6/12), pre-morbid separation difficulties (4/12). Debilitating symptoms at onset included: wheelchair requirements (6/12), speech impairments (6/12), joint pain (6/12), educational problems, school refusal, severe emotional problems and hallucinations. Choreic movements were not specifically recalled by 7/12. Psychopathology was generally most severe during first episode but 6/12 reported relapse of SC, often with recurrent psychopathology. Over time multiple diagnoses were proposed: separation anxiety (8/12), generalised anxiety (6/12), ADHD (7/12), psychosis (2/12). Some psychopathology remitted but 10/12 had psychiatric symptoms consistent with a diagnosis at interview. Service experience varied: 6/12 were not diagnosed on first presentation. After diagnosis, 8/12 had cardiology and 5/12 rheumatology reviews; physiotherapists saw 8/12, occupational therapists 6/12, speech therapists 3/12. 11/12 continued on penicillin, 8/12 had received sodium valproate and range of other psychotropic medicines and therapies were offered.