decreased. HIE has an increasing trend over the whole period. Concerning the period 1991–2010, 141 „at-risk“ babies stay with handicap (4,02% in risk population, 0,68% in total population).

Conclusion Within the period 1991–2010, a new trend of increasing „at-risk“ babies and HIE (2003–2010) requires attention, while in the same period asphyxia and ICH had a declining trend. In our Developmental consultancy all of “at-risk” children are constantly observed and treated in their best interest.

PO-0856 KETOGENIC DIET AND TUBEROUS SCLEROSIS: A ROMANCE?

N Boutrid, H Rahmoune, B Bioud. *Pediatrics, Child and Mother Hospital, Setif, Algeria*

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Introduction Brain injuries of tuberous sclerosis have a particularly severe clinical appearance because they are providers of heavy effects and can be life-threatening

We present a special scheme that was believed, wrongly, archaic effect.

Material and methods A young infant is followed since the age of 9 months for TS with refractory epilepsy and autism, without parenchymal CNS tumour.

After many therapies, a ketogenic diet is proposed... The suites are fantastic: 1 single seizure after one year of follow-up (4 years old) and decreased aggressiveness of the patient

Result and discussion Tuberous sclerosis (TS) is a phacomatosis due to mutations in tumour suppressor genes (TSC1 and TSC2).

Epilepsy can be the first clinical sign and occur at any age : 60–90% of TS patients have epilepsy. The earliest type and the most characteristic is the West syndrome.

Current research indicates that mTOR integrates information from multiple signalling pathways, including insulin, growth factors (such as IGF-1 and IGF- 2) and mitogens. mTOR is also an indicator of the amount of available nutrients for the cell, as well as the energy and redox status.

Thus, the continuous decrease of nutrient inputs inhibits sensible cell receptor of the mTOR pathway and induces a suppressive response with an inverse pathophysiological mechanism.

Conclusion Although "ancient", the ketogenic diet has been "updated", especially in support of the TS; thanks to genetic advances, noting the crucial role of nutritional receptors by inactivating the mTOR pathway.

PO-0857 CENTRAL NERVOUS THROMBOPHLEBITIS AND BEHÇET DISEASE

[1]N Boutrid, [1]H Rahmoune, [2]FC Rahmoune, [1]A Loucif, [1]B Bioud. *[1]Pediatrics, University Child and Mother Hospital, Setif, Algeria; [2]Anesthesiology, AP-HP Bicêtre Hospital, Paris, France*

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Introduction Behcet’s Disease (BD) is manifested by a triad of relapsing hypopyon uveitis, aphthous stomatitis and genital ulcers.

We present the case of a school-aged boy with a Behçet-related acute cerebral venous thrombosis.

Material and method A 8 years old boy is admitted for acute and severe headaches with nausea.

Clinical examination notes a febrile child with marked aphtous mouth (with a history of genital ‘burns’).

ESR and CRP are mildly high, while cerebral angio-CT reveals a superior sagittal sinus occlusion.

Steroids and palliative management completely resolve these symptoms, while angio-MRI confirms the isolated thrombophlebitis.

Discussion The major manifestations of vascular Behcet Disease include venous occlusion, arterial occlusion and aneurysm formation.

Cerebral venous thrombosis (CVT) results in signs and symptoms of increased intracranial pressure, like for our child.

Steroids remain the mainstay initial treatment, with a particular attention to anticoagulation and adjunction/relay with colchicine.

Conclusion Cerebral venous thrombosis may reveal BD is associated with a good prognosis when treated promptly, specially in paediatric patients.

PO-0858 WITHDRAWN

PO-0859 DIAGNOSTIC ASSESSMENT AND HEALTH SURVEILLANCE IN CEREBRAL PALSY

V Sadavarte. *Paediatrics, University Hospital of North Staffordshire NHS Trust, Stoke-on-Trent, UK*

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Background and aims Cerebralpalsy is an umbrella term for a group of disorders affecting body movement, balance and posture. Attempt should be made to establish the underlying cause. Children should be monitored for comorbidities, so that early intervention could be undertaken.

Method Retrospectivestudy of case notes of all children known to have cerebral palsy in Telford and Wrekin in UK.

Results There were 36 children, aged 2 yrs 9 mths to 15 yrs 8 mths (at Sep 09) - 24 boys and 12 girls.

Most children (91%) were given the diagnosis belowthe age of 24 mths (mean 16.3 mths).

11 (31%) were preterm, under 32 weeks gestation and 18 (50%) were born at term.

11 (31%) are in special schools.

32 (89%) were investigate dradiologically. There were radiological abnormalities in 69% of those scanned.

The majority of children, 32 (89%) had SpasticCP of which-14 (42%) had diplegia.

22 out of 36 children (61%) had co morbid problems.

Screening for co morbidities was noted to beinconsistent.

Conclusions Neuroimagingis recommended in the evaluation of cerebral palsy if the aetiology is notestablished.[1] Other investigations such as metabolic and genetic studies should be guided by the clinical presentation. A unified pathway with a checklist highlighting key points to identify co morbidities early is suggested to improve the quality of care.

REFERENCE

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PO-0860 PAEDIATRIC STROKE: A LITERATURE REVIEW

M Sammut. *Paediatrics, Mater Dei Hospital, Msida, Malta*

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Background and aims Paediatric stroke, although uncommon when compared to adult stroke, has a high mortality and morbidity rate. Between 2 and 13 children per 100,000 per year are likely to have a stroke, with 5% - 10% resulting in death and more than 50% developing neurological and cognitive defects. The aim was to review the current literature and discuss risk factors, aetiology, presentation and management of paediatric stroke.
Methods Literature review.
Results Paediatric stroke is more common amongst boys and is classified as arterial ischaemic or haemorrhagic, depending on the underlying causes. However no type of paediatric stroke is predominant over the other. There is a broad spectrum of risk factors associated with paediatric stroke and the underlying cause often involves multiple factors such as arteriopathies, maternal infections and haematological disorders. The common risk factors of hypertension or diabetes associated with adult stroke play a very minor role in paediatric stroke development. Paediatric stroke is often misdiagnosed or diagnosed at a very late stage due to the non-specific clinical presentation which depends on factors such as age and type of stroke. The medical or surgical management of paediatric stroke depends on the type, aetiology, timing and the extent of the stroke.
Conclusion Paediatric Stroke is a challenging condition in which few distinct guidelines of the most appropriate treatment exist. Further research and studies should be carried out since much of the knowledge and guidelines are currently based on adult stroke.

PO-0861 THE QUALITY OF GENERAL MOVEMENTS DURING THE NEONATAL PERIOD IN MODERATE AND LATE PRETERM INFANTS

[1]A Scheuchenegger, [1]J Pansy, [2]F Dobaja, [3]C Einspieler, [1]B Resch. *[1]Department of Paediatrics Medical University of Graz Austria, Division of Neonatology, Graz, Austria; [2]Department of Paediatrics Medical University of Graz Austria, Division of Gereneral Paediatrics, Graz, Austria; [3]Department of Physiology Medical University of Graz Austria, Research Unit iDN – Interdisciplinary Developmental Neuroscience, Graz, Austria*

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Objective The assessment of general movements (GMs) is a widely used technique to evaluate neurological (dys)function and to predict neurodevelopmental outcome in infants. De Vries and Bos (Early Hum Dev 2008, 2010) demonstrated that abnormal GMs are often seen in early recordings in extremely low birth weight (BW) and preterm (< 32 weeks) infants. Aim of our study was to assess whether this finding could be replicated for moderate and late preterm infants (32/0–36/6 weeks' gestation).
Methods We assessed GMs during the first 2 weeks (Median = 7 days; 5–8 days) of 50 moderate and late preterm infants (31 males). GM quality (global and detailed scoring) was analysed off line and related to neonatal morbidity (mainly IRDS) and other clinical factors (birth weight, need for oxygen and intensive care).
Results Mean gestational age (GA) of the infants was 35 weeks' gestation (SD = 9 days); mean BW was 2207 grams (SD = 400). Abnormal GMs were observed in 23 infants: 19 poor repertoire, 2 infants cramped synchronised, and 2 chaotic. Yet another 10 infants were scored as normal but their detailed GM score revealed a reduced motor optimality. GM abnormalities were not related to perinatal factors, such as GA, birth weight or neonatal morbidity.
Conclusion Almost every second infant had abnormal GMs during the first 2 weeks of life. Whether such an early and single GM assessment will be related to the neurodevelopmental outcome has still to remain open, as the individuals of our study group did not yet reach the age of an outcome assessment.

PO-0862 WITHDRAWN

PO-0863 LONGITUDINAL CHANGES OF CORTICAL THICKNESS FOLLOWING PREMATURE BIRTH

[1]L Vasung, [1]L Gui, [1]C Borradori Tolsa, [2]F Lazeyras, [1]P Huppi. *[1]Division of Development and Growth, Department of Pediatrics, HUG, Geneva, Switzerland; [2]Department of Radiology, HUG, Geneva, Switzerland*

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During the early postnatal period the cerebral cortex undergoes substantial reorganisation. Early changes in environmental factors (e.g. premature birth, socio-economic status) affect the reorganisation of the cerebral cortex.

In order to answer the question of how premature birth affects the cortex, we have analysed T1 MR images (n = 14) of prematurely born children (26–35 GW) at term equivalent age. Furthermore, in order to identify the factors affecting the maturation of the cerebral cortex at school age we have analysed T1 MR images of prematurely born children at school age (n = 42, 6.62 ± 0.48 years). While the segmentation of cerebral tissue in school age children was performed using the automatic method (CIVET), we have developed a new morphology-driven automatic segmentation method for the segmentation of cerebral tissue at term equivalent age. The grey and white matter surface meshes were extracted and regional volumes of the cortex and cortical thickness were estimated. Cortical metrics were calculated using the advanced MR image processing tools developed at MNI.

Mean cortical thickness, from term equivalent age to school age, showed a two-fold increase in prematurely born children. Regional variations of cortical thickness in prematurely born children at term equivalent age and school age indicated that the limbic cortex is the first to thicken while the frontal cortex lags behind. Parents' socio-economic status showed positive correlation with mean cortical thickness at school age.

In conclusion, this is the first reported analysis of longitudinal changes of cortical thickness from term equivalent age to school age in prematurely born children.

Neurology and Developmental Paediatrics

PO-0863a PUBERTY PERIOD AND EPILEPSY ONSET

[1]G Odintsova, [1]N Koroleva, [2]L Saykova. *[1]Neurology, Institute of Human Brain of Ras, Saint Petersburg, Russia; [2]Neurology, North-Western State Medical University N.a. Mechnicov, Saint Petersburg, Russia*

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Purpose Study connection between epilepsy onset and puberty period at female patients.
Methods work was the part of the antiepileptic drugs reproductive side effects study. Epilepsy onset were studied at 155 female patients older 16 y. Patients were divided into 3 groups