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HEAD CIRCUMFERENCE AT BIRTH IS NOT SUFFICIENT TO DETECT BRAIN INJURY IN INFANTS WITH CONGENITAL HEART DISEASE

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Background: Congenital heart disease (CHD) is associated with impaired development. Wide spread brain abnormalities can be detected in some infants with CHD before they undergo cardiac surgery. It is not clear if the deranged brain metabolism in utero in this group of infants may result in decreased brain growth resulting in microcephaly at birth.

Aim: to determine if head circumference (OFC) at birth would be a useful measure of possible brain injury in infants with CHD

Methods: Retrospective study of infants born with CHD born in our institution in 2008 and 2009

Results: 68 infants with CHD were assessed. 21 with Hypoplastic left heart syndrome (HLHS) 26 with Tetralogy of Fallot (TOF) and 21 with Transposition of the great arteries (TGA). The mean OFC was 33.4 cm, 32.8 cm, 33.7cm in infants with HLHS, TOF, TGA. OFC below the 3% was present in 9.5% of HLHS, 11.5% of TOF and 9.5% of TGA infants. Out of these infants 50% in the HLHS, 33% in the TOF and 50% in the TGA groups had an OFC centile significant below the centile for birth weight.

Conclusion: OFC alone in infants with CHD is not sufficient to determine infants with brain injury. More detailed evaluation is necessary to determine the infants that have sustained brain injury in utero

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LARGE FOCAL CEREBRAL HAEMATOMAS: NEONATAL PRESENTATION AND OUTCOME

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Background and aims: To evaluate perinatal factors and outcome in term neonates with large focal cerebral haematomas.

Methods: All term neonates seen between 1994-2009 with a neonatal brain MRI and large focal haematomas were included. Lesions were classified by site. Perinatal data and sequential neurodevelopmental outcome at 2,4,>5yrs (neurological exam, Griffiths scales/WPPSI, Movement ABC) were available.

Results: 32 infants were studied: Haematomas were frontal(F) in 10, temporal(T) in 8, parietal(P) in 8, cerebellar(C) in 3 and in deep grey matter (DGM) in 3. Mean GA was 40.1 week, mean birthweight 3.33 kg, median 1,5 min Apgar scores were 7.5 and 9. Eight required major resuscitation at birth. Eight presentation with seizures alone, 14 seizures+other symptoms, 2 HIE (no seizures), 1 postnatal collapse, 3 full fontanelle, 4 apnoeas/bradycardias Outcome: 1 infant died (HIE), 8 are < 2 years, two moved abroad. 2yrs, n=21: 3 cerebral palsy (CP) and developmental delay (1P, 1C, 1T+C), 3 developmental delay without CP (1T, 2DGM) and 14 normal DQ(91-110). 4yrs: n=15; 11 normal; 4 DQ< 85 (1T, 1T+C, 1DGM, 1C). No new CP. >5yrs: n=13; 9 normal FSIQ(WPPSI) including 3 with abnormal MABC (2F, 1DGM); 1 child was autistic (normal range DQ at 4yrs, F) two mild/moderate delay (1C, 1DGM), one severely delayed (DGM). One child had febrile seizures and two had late-onset epilepsy.

Conclusions: At each assessment age about 1/3 of children had developmental problems, some were severely affected, mostly those with cerebellar

or DGM lesions (without CP). In the majority of children with isolated hemispheric haematomas outcome was consistently good.

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A CLOSER LOOK AT CRYPTOGENIC- ENCEPHALOPATHIES WITH DERANGED HEPATO-RENAL-MULTI- ORGANS- DYSFUNCTIONS CONSISTENT WITH REYES SYNDROME(RS) GUIDES SPECIFIC/INVASIVE INVESTIGATIONS/INTERVENTIONS AND FOLLOW UP.

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Background/Purpose: RS is a non-inflammatory-post-viral-acute-encephalopathy.It is likely that interactions with toxins-pollutants such as pesticides-solvents-drugs may be contributory in its propagation. Globally, the putative-association of Aspirin/NSAIDS/ influenzaeB/varicella/ARI/GET were suggested as the most plausible-event. Abnormal blood-ammonia- level may be absent.Some unusual/unexpected-complications were-described for RS.. Concerns of accompanying- bleeding- diathesis-precluding- biopic- studies-suggests that most diagnosis- were- made-postmortem,which- may-not-always be-achievable.

Methodology/cases: Algorithmic-certainty-classifiers-using-historical-clinical-radiological-pathological -biological-data-were-applied-to-suspected-RS-cases.Other- crucial information- were-gleaned.Cases-within-the-epidemiologic-range-of-interest- were -analyzed.

Results/Interventions: (n=76) had-suggestive-features. All cases had paracetamol,in addition in(n=11)an over- the-counter-cold-preparations-constituted-with-acetylsalicylate/ibu-profen. In(n=47)the-diagnosis-of-RS- were-determined-to-be- worthwhile.In (n=29), presumptive- RS- was-considered- plausible on the basis of the above-features consistently- with- the guide- of a raised-aspartate transaminase a mitochondrial enzyme, BUN/other relevant data. These cases were analyzed further.Most cases were under fives.Febrile-responses(n=29) were constant- feature,Seizures in (n=19),progressive-drowsiness(n=17) (n=17),Irritability (n=23),vomiting (n=14),abdominal pains (n=12) Bleeding diathesis (n=9),Cephalgia (n=6), Hepatosplenomegaly (n=), Leucopaenia

(n=2),polymorphonuclear leucocytosis(n=10) were the accompanying features.:Class one -Conscious but lethargic and irritable (n=3)Class2-Unconscious but responsive to stimuli (n=9)Class3-Absolutely unconscious with decorticate posture (n=7) Class4-Absolutely-unconscious with-decerebrate posture(n=6)Class5-Absolutely- unconscious- with-flaccidity (n=4)In (n=18)ARI antecedents,where as (n=11) there were GET precedents,(n=29) had predominantly significant hepatic dysfunction,where as in (n=) there was an associated-renal dysfunction(n=5),haematuria (n=1)pulmonary-oedema (n=3),aspiration pneumonitis were demonstrated in (n=18), in (n=) severe MOD (n=5) Bleeding diathesis (n=3), Septic shock/bleeding diathesis (n=3) with demise (n=3) & (n=2) with cerebral morbidity were confined to classes 4&5.

Conclusions: This result suggests- that the supposedly low incidence of RS in settings where the level of aspirin use in common childhood illnesses is undetermined needs to be reappraised.Utmost management would imply a rational approach to a complex problem.

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“BIOPHYSICAL PROFILE OF BLOOD PRESSURE IN URBAN SCHOOL CHILDREN OF SOUTH INDIA”

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Objective: To Study the prevalence of Pre-hypertension & Hypertension and the relationship of Blood Pressure with variables like Age, Sex, Weight, Height, Body Mass Index (BMI), Socioeconomic status and Family history in Urban school children.

Design: Cross sectional study

Participants: 2500 children in the age group of 5 - 14 years, selected by systematic random sampling during March 2008 - June 2009

Results:

a) The Prevalence of Hypertension among children between 5 - 14 years was 7.2 % (6.6 % in Boys & 7.9 % in girls).

b) The Prevalence of Pre-hypertension was 4.7 % and was found to be twice in Boys (6.2%) as compared to that in Girls (3 %).