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FROM BIRTH TO SEVEN YEARS: A GREEK NATIONAL LONGITUDINAL STUDY

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In Greece all infants born in April 1983 were included in the National Perinatal Study. Out of those 10921 children-excluding dead, severely handicapped and those who immigrated-8158 were traced,only by their date of birth,7 years later in primary school. Parents assisted by teachers completed a questionnaire covering important aspects of their physical, behavioural and social development. Checking for various variables we showed that the bias introduced by missing 18% of the original cohort was not statistically significant. Moreover the two records for each individual child were matched for 70% of the cohort. The descriptive analyses gave a thesaurus of information on: family structure (5% single parents, 21% cohabitation with grandparents); child's medical history (31% hospitalization); motor and sensory development (7‰ motor disability, 8.5% speech problems) accidents (34%, 1.25 per child); present health status (7.5% asthma, 7‰ epilepsy); life-style (homework, T.V., sports, hobbies); preschool and primary school activities; behaviour both at school and home (3.6% bed wetting and 1% soiling at least once a week); socioeconomic status; attitudes towards rearing (18% physical punishment every day) and performance at school (2.6% severe learning problems).

These findings mayserve, as guidelines for rational reorganisation of all pertinent services in Greece based on the real needs of our children and their families.

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PREMATURE BIRTH OVER 20 YEARS

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The risk factors for premature birth were evaluated with an interval of 20 years. The study population comprises two one-year cohorts of parturients (n=21430) and births (n=21710) for years 1966 and 1985-1986. The infants born from multiple pregnancies, infants with unknown gestational age and the prematures delivered after elective caesarean section or induced labour were excluded, which leaves 12184 infants for the 1966 and 9161 for 1985/86 cohort. Among the 1966 cohort 9 %, while among 1985/86 cohort 4 % were premature. 12.5 % of the families belonged to the two highest social groups in 1966 whereas 25 % did in 1985/86. 72 % of the mothers in 1966 had passed only elementary school, while in later 1985/86 cohort 28 %. The association of prematurity and different biological factors was studied using a logistic regression model and stratification with respect to sociodemographic factors. In both cohorts placental abnormalities, vaginal bleeding, earlier low birth-weight baby and the most disadvantageous sociodemographic group were associated with prematurity. In 1966 also age under 20 and in 1985/86 cohort malformations, hypertensive disorders and smoking increased the risk of premature labour. The study showed that the incidence of prematurity has decreased by more than half over 20 years, the families' social wellbeing has increased and that the effect of social factors on prematurity is less important. The biological factors are mainly the same and have the most important effect on the risk of the prematurity.

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PREDICTION OF QUALITY OF LIFE (QL) IN SPINA BIFIDA (SB) BY PARENTAL ATTITUDES AND PHYSICAL EXAM.

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We developed a QL instrument for SB, to examine the relative contributions to children's QL of Parental Life Attitudes (PLA), and Level of Lesion (LL). We hypothesised that both influenced the patient's QL. Items were generated from patients and families. Irrelevant items were eliminated by frequency importance products. This reliable (Test-Rest CC 0.7-0.9) instrument of 40 items in 10 domains,(eg. social, emotional) was validated in 2 age groups by prior hypotheses (Pearson R for 2 hypotheses 0.6 and 0.7). It was then mailed to a random sample in two age groups; 5-12y, >12y. PLA were assessed by the valid Miller Hope scale (M-H). The proxy response by parents of 5-12y subjects; and the child's own response in >12yr olds were obtained. Finally parents were asked to rate a single global score for their child's QL. Level of lesion was extracted from the patient chart. Regression analysis of QI as a dependent variable showed :

Results:	5-12y	>12y	
Response Rate:	133/194 (69%)	74/138 (54%)	
M-H ie.PLA	R^2 0.17, p=0.0001	R^2 0.23,	p=0.0001
L.Lesion	R^2 0.06, p=0.1	R^2 0.000002,	p=0.99
Hydrocephalus	R^2 0.04, p=0.03	R^2 0.003,	p=0.6

To conclude, QL appears to be significantly correlated with PLA. Simple LL nor HC does not appear to greatly contribute to this measure of QL. This instrument may have clinical applications, including assessment of treatment options.

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The predictive value of preschool Child Health Surveillance in the detection of mild to moderate Learning Difficulties.

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Objectives: The Hall report (1989,1991) specified the early detection of mild to moderate Learning Difficulties (LD) as one aim of the Child Health Surveillance System (CHS). This study examines the efficacy of the preschool CHS in the early recognition and management of children with these disorders.
Subjects: All children (n=408) with mild to moderate LD born between 01/07/83 and 30/06/84 and resident in N&W Belfast .
Controls: 2750 birth records and 183 full CHR's controlled for age and area.
Results: - The prevalence of mild to moderate LD in N&W Belfast was 17%. Coverage of the CHS was ranging from 90% at the 2 year examination to 98% at the 4 year examination. LD were documented in only 6% of the preschool CHR. Speech delay (OR= 3.3), poor parenting skills (OR=1.21), enuresis (OR=2.4), vision (OR=1.8) and behaviour (OR=2.8) were the only preschool indicators significantly predictive of later LD. Perinatal factors such as lower social class (OR=4.6), prematurity (OR=2.1), male sex (OR=1.6), and marital status (OR = .65) were also significant. The CHS had very poor positive predictive value (<20%) in detecting LD in the preschool period. Only half the children were referred for assessment. Conclusions: The CHS as it existed from 1983 to 1989 in N&W Belfast was poorly sensitive to the detection of mild to moderate LD. The significance of certain risk factors such as speech delay would appear to have been missed.

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THE INTERNATIONAL NEONATAL NETWORK: A STRATEGY FOR MONITORING THE EFFECTIVENESS OF PERINATAL CARE.

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The International Neonatal Network aims (i) to develop accurate measures of initial risk and more reliable comparisons of treatment and outcome between hospitals; (ii) to document how widely treatments whose efficacy is already proven in randomised controlled trials are being applied. In a pilot study, 523 consecutive infants of <31 weeks gestation were admitted to 30 hospitals in 12 countries over a continuous period of at least 3 months between July 1991 and July 1992. Complete data on maternal steroid therapy in relation to initial disease severity and outcome were available in 490 (95%).

	Duration of steroids before delivery			
	>24 hr	<24 hr	None	p
n	171	62	257	
Mean FiO₂ first 12 hr	0.32	0.41	0.50	**
hospital deaths	12%	19%	23%	*
treated with IPPV	72%	80%	86%	**
given surfactant	36%	41%	54%	**

$** p < .001; * p < .01$

In individual hospitals, the proportions of women given any steroids before delivery varied from 90% to 25%. Regular audit of antenatal steroid therapy in all high risk women admitted more than 24 hours before delivery should now be mandatory.

GASTROENTEROLOGY

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TEMPORARY AUXILIARY LIVER TRANSPLANTATION (TALT) FOR FULMINANT VIRAL HEPATITIS A (VHA) IN A CHILD. Umberto Simeoni, Karim Boudjema, Daniel Jaeck, François Becmeur, Jocelyne Heitz, Marie-Pierre Chenard, Franz Schieffer, Ahmed Lahlou, Angelo Livolsi, Philippe Brunot, Michel Fischbach, Philippe Wolf, Jacques Cinqualbre, Jean Geisert. Service de pédiatrie 1, Hôpitaux Universitaires de Strasbourg, France.

Objective: To establish the feasibility of TALT in the treatment of fulminant VHA in children.
Background: emergency orthotopic liver transplantation (OLT), although dramatically improving the prognosis of fulminant liver failure in adults and in children, is an irreversible procedure which implicates the removal of the patient's native liver while the recovery of hepatic function in patients who survive under supportive treatment is possible.
Design: case report.
Patient: A 4 year old male presented with fulminant VHA, characterized with a grade 4 encephalopathy, a 74.5 sec (control 12 sec) prothrombin time and a 611 μmol/l serum total bilirubin level. Serum IgM antibodies level for hepatitis A virus was 1/10640 (ELISA).
Methods: TALT consisted in the orthotopic transplantation of the segments 2 and 3 of a reduced liver provening from a cadaveric donor, after segments 2 to 4 of the recipient's liver had been resected. Immunosuppressive therapy included ciclosporine, prednisone and azathioprine. Evolution was followed by usual biological liver function tests, and by periodical comparison of biliary excretion of ciclosporine, biliary isotopic scans and biopsy specimens between the native and the transplanted liver.
Results: The patient recovered a nearly normal liver function and consciousness on day 3 after TALT. Complications included a peritonitis which occured on the third week after TALT and necessitated a re-operation, and a concurrent acute liver rejection which was treated with OKT3 antibodies. Afterwards, liver biological tests evoluted towards normalization, while ciclosporin levels in the bile provening from the recipients own liver increased, and serial biliary isotopic scans as well as liver biopsies showed a progressive recovery of the patient's native liver function and morphology. Surgical removal of the graft was performed three months after TALT, and immunosuppressive therapy was discontinued, allowing the complete recovery of the patient.
Conclusion: TALT may represent a suitable therapeutic procedure for fulminant liver failure due to viral hepatitis A, avoiding the removal of the patient's native liver and allowing consequently the discontinuation of immunosuppressive therapy.