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EFFECTS OF ELECTIVE CESAREAN SECTION ON LACTOGENESIS

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Background and aim: Elective cesarean section incidence is rising worldwide. The current study examinated elective cesarean section (ECS) influences on maternal anxiety, hormones levels and breastfeeding in the first six months after birth, comparing with emergency cesarean section and vaginal delivery (VD).

Methods: We contacted 106 consecutive mothers, included in the study according to specific criteria.

The mother anxiety levels were evaluated according to the State-Trait Anxiety Inventory-Y (STAI-Y) questionnaire. We tested stresses hormones (prolactin, TSH, cortisole) immediately after delivery and after three days. We assessed the newborn baby nutrition pattern in the delivery room, after one week from the birth and after 30 days, 3 and 6 months (WHO).

Results: ECS represents a negative factor for earlier breastfeeding, compared to VD ($p=0.02$), with anxiety levels ($p=0.15$), hormones levels (prolactin $p=0.05$) and lack of breastfeeding in delivery room ($p < 0.05$).

The caesarean section ($p=0.005$), early breastfeeding in the delivery room ($p=0.0009$) and type of delivery ($p < 0.05$) are determinants in breastfeeding after 7 days, 3 and 6 months. Breastfeeding mothers have lowest state anxiety levels ($p=0.04$).

Stress hormones levels change in connection with the type of delivery, but only prolactin result to be significant for earlier breastfeeding ($p=0.05$).

The type of delivery influences breastfeeding in the third month ($p=0.005$). **Conclusions:** ECS influences negatively breastfeeding in early life, conditioning it in the delivery room, after three and six months , the hormones and the anxiety levels, with consequences on baby growth and development influencing the relationship with his mother.

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USE OF AMPLITUDE INTEGRATED ELECTROENCEPHALOGRAPHY (AEEG) IN PATIENTS WITH INBORN ERRORS OF METABOLISM - A REVIEW OF 29 CASES

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Background: Amplitude integrated EEG (aEEG) has been established in neonatal care as tool to monitor encephalopathy after asphyxia and seizures due to various aetiologies. Patterns representing seizures and different degrees of encephalopathy have been defined. Patients with inborn errors of metabolism often present with encephalopathy/ seizures but published knowledge regarding aEEG use in metabolic patients remains limited as disease frequencies are low.

Aims: Review aEEG tracings of patients with inborn errors of metabolism to evaluate the potential role of this technique in evaluation/treatment of this patient group.

Methods: Through an international collaboration, 29 aEEG tracings of patients with inborn errors of metabolism were collected and reviewed.

Results: Diagnoses were: disorders of energy metabolism (n=10), disorders of amino or organic acid metabolism and urea cycle defects (n=14), peroxisomal disorders (n=5). Encephalopathic changes were seen in 18/29 patients (62%); ictal discharges were noted in 19/29 patients (66%). In all diagnostic groups, with the exception of peroxisomal disorders, both encephalopathic changes and seizures usually coincided; in peroxisomal disorders, seizures were seen without encephalopathic background patterns. 4/29 patients (14%) showed unusual upward shifts of the lower aEEG margins. Five patients, some clinically symptomatic, had

normal aEEGs. Background patterns changed in 8/29 (28%) tracings during the recording. Details of individual recordings will be presented.

Conclusions: The majority of patients with metabolic disorders had abnormal aEEG tracings, some with marked and/or unusual changes. As aEEG monitoring allows for ongoing assessment of patients, it may aid in evaluation, monitoring of treatment responses and counseling in this patient group.

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PRENATAL MATERNAL STEROID TREATMENT - EFFECT ON MORTALITY AND BRONCHOPULMONARY DYSPLASIA (BPD) IN EXTREMELY PREMATURE INFANTS

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Background and aims: Prenatal steroids (PS) are considered important in the treatment of extremely premature infants. The study was undertaken to evaluate the impact of PS on mortality and BPD in a national cohort with a high rate of prenatal steroid tretment.

Methods: All 452 admitted infants with GA ≤ 30 weeks from a national cohort of infants with gestational age (GA) of 22^0 to 27^6 weeks and/or birth weight (BW) of 500 to 999 g were studied. 83 infants died and 376 infants who survived past day 28 were evaluated for development of BPD.

Results: Although infants with or without PS had similar GA and BW, no significant differences in mortality or development of BPD could be seen (Table 1).

		PS+	PS-	p
Entire cohort	452	381*	54	
GA (wks)	26.2±1.7	26,1±1.7	26,3±1.5	0.398
BW (g)	832±180	829±182	842±156	0.596
Died	83 (18.4%)	68 (17.8%)	13 (24.1%)	0.311
BPD cohort	376	322#	41	
GA (wks)	26.4±1.5	26.4±1.6	26,7±1.6	0.257
BW (g)	853±176	845±175	904±174	0.040
BPD	170	148 (45,9%)	19 (46.3%)	0.963

[Table 1]

* data missing for 17 infants # data missing for 13 infants

Conclusions: The study indicates that treatment with prenatal steroids have only minor effects on mortality and development of BPD in extremely premature infants.

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NEONATAL MORBIDITY IN MODERATELY PRETERM INFANTS. A SWEDISH NATIONAL POPULATION-BASED STUDY

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Objective: To determine the gestational age specific risks for neonatal morbidity, interventions and treatments in infants born at the crossroads between very and moderately preterm.

Study design: A population-based Swedish study including 6,674 infants born at 30 to 34 weeks of gestational age (GA) during 2004-2008. Risks for neonatal morbidity and use of interventions were investigated with respect to GA and birth weight standard deviation scores.

Results: Acute lung disorder was diagnosed in 28%, hypoglycemia in 16%, bacterial infection in 15% and hyperbilirubinemia in 59% of the moderately to very preterm infants. Thirty-eight percent were exposed to antenatal steroid therapy, 43% received nCPAP, 5.5% required mechanical ventilation, 5.2%