She received intravenous Phenobarbital 10 mg/kg followed by 5 mg/kg/day.

Initial laboratory findings including lumbar puncture and initial metabolic evaluation were all unremarkable. A tumor or congenital malformation of the left hemisphere of the brain was suspected after the first two dimensional brain ultrasonography. Multi Slice Computed Tomography (MSCT) revealed left HME, confirmed with the magnetic resonance imaging (MRI) together with polymicrogyria of frontal lobe, aypical form of the left Sylvian fissure and the left frontal ventriculomegaly. She developed refractory seizures (tonic; focal with automatisms – squelching, eye blinking; generalised, often waking her up from sleep). EEG showed suppression burst pattern and after extensive diagnostic evaluation the Ohtahara syndrome was diagnosed.

Despite several different antiepileptic drugs, and their different combination, frequency and severity of the seizures did not improve and she developed severe developmental delay. At the age of 10 months she underwent functional hemispherotomy, and so far, eight months after the surgery she experienced no seizures together with major improvement in neuromotor development (despite strabismus and right hemiparesis which occurred after surgery). Her twin sister is healthy, normally developing, without seizures. Our findings are in comply with the data from the literature, claiming that after surgery the improvement of the patients is remarkable.

Results From the opening to mid-February, 135 women showed interest in donating human milk, of which 28 became donors.

In February 2020, we had 24 still active donors. Four women stopped donating, with a median donation period of 2 months. All donors were tested for blood borne viruses by serology and NAT and were negative. In total, we received 79 L of donated human milk. We started pasteurizing the milk after obtaining a license. Of the 30 controlled pre-pasteurization milk pools, 10% was over the allowed microbial contamination. Microbiological controls were performed for each pasteurization cycle. They were all sterile. The nutritional values of milk were all within the expected range.

Conclusions Human milk is recognised as the optimal feeding for all newborn infants.

When mothers’ own milk is not available, donor human milk provided by HMB is the second-best choice, especially for premature or sick infants. The opening of the HMB in Croatia is highly important in helping to provide the best possible medical care for prematurely born babies and infants with a serious medical condition when they cannot receive their mother’s milk.
Abstracts

**112 EARLY NEONATAL OUTCOME OF NEWBORNS WITH MOTHERS HYPOTHYROIDISM IN PREGNANCY**

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Newborns of mothers with hypothyroidism (latent or manifest) in pregnancy were investigated during two one-year periods. The aim was to point out particularities in mother’s amnensis, pregnancy and labour, as well as the clinical characteristics of neonates (Apgar score, gestational age, birth weight, mode of delivery) and to compare the differences in two periods.

**Subjects** The research was conducted on newborns of mothers with hypothyroidism in pregnancy in the Clinical Hospital Centre Osijek in 2015 and 2018. The control group consisted of newborns first born afterwards.

The data were presented in tables, in absolute and relative frequencies. Chi-square test was used to demonstrate the statistical significance, resulting in significance level of p < 0.05. It was retrospective case control study.

Mothers with hypothyroidism in pregnancy had more acute complications in pregnancy (infections, hypertension, pre-eclampsia, gestational diabetes) and delivery, and more complications in reproductive anamneses. Urgent Caesarean section was much more common for their newborns. C-reactive protein among them was often higher than 5 mg/l. They gave birth prematurely more often, while infections, cyanosis, hypoa- and hypertonus, and jaundice were also more common. Complications of prematurity and the need for oxygenation occurred much more often than in the control group. They were also hospitalized longer. Comparing the two one-year periods, we found less complications during pregnancy and delivery in the year 2018; the frequency of mothers with bad reproductive anamnesis was three times lower, as was the number of urgent Caesarean sections. The number of newborns born prematurely was two times smaller. In 2018, neonatal outcome included three times less common onset of infection, cyanosis, hypo- and hypertonus, and less common preterm labour. The need for oxygenation was five times, and for prolonged hospitalisation nine times less common.

**Conclusion** Better perinatal care and screening of mothers with hypothyroidism improves neonatal outcome as well as long-life consequences in newborns and lowers the complication rates for mothers during pregnancy and delivery.

**113 UMBILICAL CORD BLOOD CYTOKINES TNFα AND IFN γ LEVELS INCREASED IN CHILDREN BORN TO MOTHERS WHO ARE OBESE**

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**Introduction** Maternal obesity is considered one of the several key factors that affect development of the immune system of newborns. Experimental and clinical data indicate an increased risk of developing autoimmune, allergic diseases and obesity in the offspring of obese mothers. The main mechanisms of the relationship between mother’s body weight and the immune system of a newborn person remain poorly understood.

**Objectives** Aim of this study was to analyze the cytokine status of umbilical cord blood of children born to mothers with obesity.

**Methods** Umbilical cord blood samples were taken from 65 children born to thin (n = 24), with overweight (n = 9) and obese mothers (n = 32). The levels of TNFα, TGFβ1, IL 18, IL 13, IL10 and IFN γ were quantified by IFA. Statistical processing of data was performed on a personal computer using licensed computer software ‘Microsoft Excel 2016’ and ‘STATISTICA 12’. The Student t-test value was determined while analyzing the distribution of quantitative data. The criterion of statistical significance level was p < 0.05.

**Results** Compared to children born to thin mothers, children born to obese mothers had higher levels of umbilical cord blood plasma TNFα (12,75±10,80 pg/ml and 4,94±3,55 pg/ml; P1,3=0,005408) and IFNγ (798,90±565,96 pg/ml and 311,05±249,08 pg/ml; P1, 3=0,014947).

**Conclusion** These results confirm the hypothesis that maternal obesity affects programming of the immune system of newborns providing a potential connection with an increase in the incidence of chronic inflammatory diseases and obesity in offspring.

**114 HYPOTHERMIA IS PREVENTABLE**


**Background** Temperature regulation is an important part of new-born care. This is especially true of pre-term infant and those with the low-birth weight, which represent a significant proportion of the population in the neonatal unit.

**Aim** The audit was performed to assess the quality of care in relation of hypothermia. The audit was aimed at observing babies admitted to neonatal unit Leicester Royal Infirmary and Leicester General during the months of June -July (period 1) and November – December (period 2), with a body temperature below the 36.5. The second objective was to look at the documentation of the admission temperature.

**Methods** The data was collected retrospectively. Babies were identify using the online record system. Data was also collected on gestational age, birth weight, reason for admission...