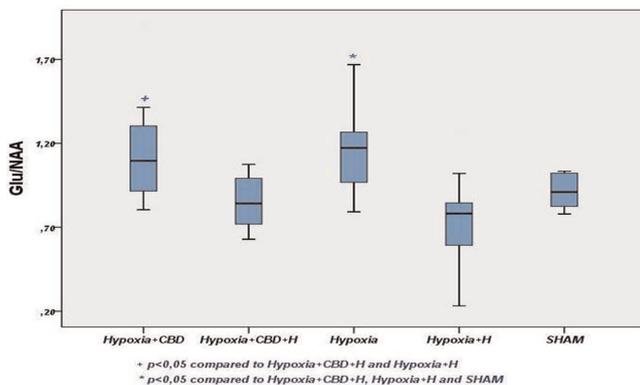


Abstract PO-0483d Figure 1



Abstract PO-0483d Figure 2

neuroprotective agent. The aim of this study was to explore the neuroprotective properties of CBD after hypoxia ischemia in newborn piglets.

**Materials and method** 54 anaesthetised piglets (age 12–36 h) were randomised to either undergo global hypoxia (n = 48) until the base excess reached -20 mmol/L or the mean arterial blood pressure dropped below 20 mm Hg or to the SHAM group (n = 6). After hypoxia piglets were randomised to the different study groups: Hypoxia+CBD (1 mg/kg) (n = 12), Hypoxia+CBD(1 mg/kg)+hypothermia (n = 12), hypoxia (n = 12) or hypoxia+hypothermia (n = 12). 9.5 h after end of hypoxia the piglets were euthanized and samples from hippocampus were snap frozen in liquid nitrogen. Levels of lactate (lac), n-acetylaspartate (NAA) and glutamate (glu) were measured by proton-magnetic-resonance-spectroscopy ( $^1\text{H}^+$ -MRS)- and ratios predictive of neurodevelopmental outcome after hypoxic-ischaemic encephalopathy in newborns were calculated (lac/NAA and glu/NAA). Outliers > 2.5 SD away from mean were removed before analysis.

#### Results

**Discussion** Hypoxia significantly increased both Lac/NAA and Glu/NAA ratios. Hypothermia groups were comparable to SHAM while there were no significant effects of CBD on these MRS biomarkers. The difference in the way of inducing and the severity of hypoxia-ischemia in our model might explain this lack of effect compared to previously published studies.

## Neonatal Cardiovascular

### PO-0484 NEONATAL THYROTOXICOSIS WITH SEVERE SUPRAVENTRICULAR TACHYCARDIA: CASE REPORT AND REVIEW OF THE LITERATURE

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**Background and aims** Neonatal thyrotoxicosis is a rare condition caused by the transplacental passage of thyroid stimulating immunoglobulins from mothers with Graves' disease. We report a case of neonatal thyrotoxicosis with concurrent supraventricular tachycardia.

**Case Report** The female infant, who was born by caesarean section due to breech delivery and meconium in the amniotic fluid at 36 weeks of gestation, presented with tachycardia on day 7. Her heart rate was between 260–300 beats/minute, and electrocardiogram revealed ongoing supraventricular tachycardia. Sotalol was effective after two cardioversions in maintaining sinus rhythm. Our patient was diagnosed to have thyroid storm due to thyrotoxicosis. Intensive medical therapy was started with 10 mg/kg/day of propylthiouracil, 1 drop of Lugol's iodine solution three times per day, 2 mg/kg/day propranolol, and 2 mg/kg/day of oral prednisolone. After the diagnosis of neonatal thyrotoxicosis, the mother in our case was found out to have hyperthyroidism with TSH: 0.035  $\mu\text{IU/mL}$  (normal: 0.35–4.94). She was immediately started methimazole treatment.

**Conclusions** The purpose of presenting this patient is to emphasise the importance of prenatal care and follow-ups. Obstetricians, endocrinologists, and paediatricians need to work together for better management of Graves' disease associated pregnancies.

### PO-0485 CEREBRAL BLOOD FLOW AND OXYGENATION CHANGES FOLLOWING BLOOD TRANSFUSION IN PRETERM INFANTS

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**Background and aims** We have shown blood transfusion (BT) significantly reduces cerebral blood flow and improves cerebral tissue oxygenation in preterm infants during the first week of life.<sup>1</sup>

**Aim** To study the effect of BT on cerebral blood flow and oxygenation during the 2nd to 4th week of life in preterm infants.

**Methods** Pre and post-BT Anterior Cerebral Artery (ACA) peak systolic velocity, mean velocity, resistance index (RI) and pulsatility index (PI), and Superior Vena Cava (SVC) flow were measured using Doppler USS. Pre, during and post-BT cerebral oxygenation were measured using Near Infra-Red Spectroscopy (NIRO 300).

Pre and post-BT measurements were compared by paired t-test using SPSS 22.0.

**Results** 21 preterm infants with median (range) gestational age of 25(23–30) weeks, birth weight 805(630–1250) grams, chronological age 14(8–27) days and pre-BT Haemoglobin 10.3(7.7–12.2) g/dl were studied.