## 26th World Congress on Ultrasound in Obstetrics and Gynecology

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### EP19.12

Doppler investigation of the blood flow in fetal bain in breech presentation

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**Objectives:** The aim of the investigation was to explore the nature and changes in blood flow in the vertebrobasilar system of the fetus and newborn in breech presentation.

**Methods:** Was conducted the study of the cerebral blood flow (middle cerebral artery, vertebral artery, basilar artery) in 262 fetuses with breech presentation.

Results: At 32-34 weeks of pregnancy impaired blood flow in the vertebral arteries was diagnosed in 38.4% of cases. The indicators characterising the impaired blood flow are symmetrical or asymmetrical increase SDR more than 4.0, PI - more than 1.7 ; increase in vertebral-aortic ratio greater than 0.9; reduction of cerebro-spinal less than 0.85.Hemodynamic disturbances in the fetal brain characterised by a decrease in vascular resistance index: SDR less than 2.4, the PI - less than 1.2. Disorders of blood flow in the middle cerebral artery of the fetus were discovered by us only against a background of blood flow disturbances in the vertebrobasilar system of the fetus, and their frequency was 17.9%. The antenatal study of a blood flow in the fetal vertebrobasilar system was found that the most frequently identified isolated changes (82.1%), 14.3% - combined disturbance observed in 3.6% - pronounced signs of vertebrobasilar insufficiency. When delivery of the fetus in pregnant women with pelvic previa by Caesarean section incidence of blood disorders in newborn vertebrobasilar system decreased to 33.8%. This changes detected in 2 times less, and severe symptoms of vertebrobasilar insufficiency are not marked.

In neonates born vaginally, impaired blood flow in the vertebrobasilar system are diagnosed in 73.9%.

**Conclusions:** At 8.7% of infants born vaginally in breech presentation at neurosonography revealed expansion of the brain ventricles with increased echogenicity of the vascular plexus, from 4.3% – the signs of intracerebral hemorrhage, at 26.1% – the echosigns of hypoxic-ischemic CNS.

## **EP20: MULTIPLE PREGNANCY**

EP20.01

Twin pregnancy birth in a new non-tertiary hospital

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**Objectives:** This study aimed to evaluate the neonatal outcome of twin pregnancies delivered in a new non-tertiary hospital.

**Methods:** A retrospective study involving 32 twin pregnancies delivered from January 2013 to December 2015 was carried out. Maternal and neonatal data were obtained from appointments and delivery data. Chorionicity was determined by ultrasonography.

**Results:** During this period 4226 births occurred in our hospital. Mean maternal age was 31.2 years, with 39.4% of the pregnant women being nulliparous. Incidence of twin births was 7.6/1000 and 87.5% were spontaneously conceived. Regarding chorionicity, 65.5% (21/32) were dichorionic (DC) and 34.4% (11/32) were monochorionic diamniotic (MCDA). The mean gestation age at delivery was respectively 36.2 and 35.6. Spontaneous delivery was observed in 7 (33.3%) cases of DC and in 5 (45.4%) cases of MCDA. The most frequent route of delivery was cesarean section: 80.9% for DC and 63.6% for MCDA. The mean birth weight was 2.344g and 2.325g for DC and MCDA. There were no cases of 5-minute Apgar score less than 7 nor neonatal deaths for both DC and MCDA twins. No maternal death was registered and 4 cases of postpartum hemorrhage occurred.

**Conclusions:** The low incidence of twin deliveries observed in our study may be due to the lack of an infertility unit in our hospital coupled with the impossibility to perform perform deliveries in pregnancies less than 34 weeks. This last fact also explains our low rate of immediate neonatal morbidity and mortality.

#### EP20.02

# Relation between levels of BHCG and PAPP-A with fetal weight in twin pregnancies.

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**Objectives:** To see the correlation between the levels of BHCG and PAPP-A with weights of newborns in twin pregnancies.

**Methods:** Retrospective study in twin pregnancies in which a screening for Down syndrome was conducted in the first trimester by PRISCA software, between January 2013 and October 2015.

BhCG and PAPP-A levels were compared between uncomplicated twin pregnancies (monochorionic and dichorionic).

BhCG and PAPP-A levels were compared between uncomplicated dicorionic twin gestations and newborns weights between 10 and 90 p (control group), and twin gestations in wherein at least one of the twins had a weight < p10 or > p90.

**Results:** There was a statistically significant difference in the level on the PAPP-A between monochorionic and dichorionic.

When monochorionic gestations were excluded, there was a statistically significant difference in the level on the PAPP-A between dichorionic pregnancies: PAPP-A was lower when weight is greter.

**Conclusions:** Contrary to what happens in singleton pregnancies, low PAPP-A correlate with high weight of at least one twin in dichorionic twin pregnancies.

There was no statistical significance when levels of PAPP-A were high, or BHCG values, regarding fetal weights.

#### EP20.02: Table 1.

#### REASONS FOR INCLUSION

Age of gestation and corionicity was confirmed in the first trimester both fetuses were born alive after 36 gestational weeks. OUT OF CONTROL GROUP

BEFORE GESTATION

Hypertension, Diabetes type 1, Hypertensive disorders in previuos gestation, thrombophilias, antiphospholid síndrome, lupus. DURING GESTATION

Any hypertension, Diabetes, newborn weight minor p10 or major p90, ovodonation, TFFS.

#### EP20.03

Single intrauterine demise of one fetus and the risk of neurologic morbidity in multiple pregnancy

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