

partment of Obstetrics and Gynecology. 180 patients who gave birth to babies heavier than 4000 g between January 2000- January 2002 were selected. 72 nonsmoking, nondiabetic women with uncomplicated gestations who had enough data were admitted to the study (Group I). Control group (Group II) included 76 patients with uncomplicated singleton pregnancies who had delivered babies <4000g between 37 and 42 weeks of gestation. Gestational age was confirmed by measuring crown rump length (CRL). Maternal weight, height, body mass index (BMI), parity, gestational age, 50 g oral glucose test value and second trimester maternal serum levels of alpha-fetoprotein (AFP), unconjugated estriol (uE3) and human chorionic gonadotropin (hCG) levels were compared in two groups. Univariate analysis was performed to detect parameters related with birth weights. Multiple linear regression analysis was used to detect independent risk factors to predict high fetal weight.

Results: A total of 1706 deliveries occurred during the study period. The rate of macrosomic deliveries was 11 % (n=180). The mean birth weight of the study and control groups was  $4216 \pm 247$  and  $3254 \pm 327$  g respectively ( $p < 0.001$ ). Serum AFP levels in the study group ( $0.95 \pm 0.30$ ) was lower than control group ( $1.21 \pm 0.48$ ) ( $p < 0.001$ ). Gestational age at delivery was higher in the study group ( $39.89 \pm 1.20$ ) than the control group ( $38.94 \pm 1.34$ ) ( $p < 0.001$ ). Maternal parity, weight and body mass index also were higher in the study group ( $p < 0.001$ ). Univariate and multiple linear regression analysis confirmed that gestational age and AFP levels were independent risk factors that could predict birth weight.

Conclusion: Gestational age and serum AFP levels are independent predictive risk factors for high birth weight.

#### FCP100

##### **SUBAMNIOTIC HEMATOMA MIMICKING THE TUMOR OF FETAL MEMBRANES IN A MIDTRIMESTER TWIN PREGNANCY: A CASE REPORT**

**Aslan E., Bağış T., Kılıçdağ E., Tarım E., Erkanlı S., Ergin T.,** *Başkent University Medical Faculty, Adana – Turkey*

Subamniotic hematoma formation is a pathophysiologic end point of placental abruption. Placental abruption itself usually happens in the third trimester, but it can take place any time after 20 weeks of gestation. We present a second trimester twin pregnancy admitted to our clinic with mild vaginal bleeding. Ultrasound examination revealed that two fetuses were alive and aged 23 and 24 weeks of gestation. A mass located on the fetal membranes separating the fetuses was observed to be freely floating by fetal movements. There was neither abdominal pain nor contractions on cardiotocography. Ultrasound examination and clinical evaluation made the hematoma diagnosis more unlikely since the hematomas are usually located by or under the placenta and adherent to decidual and myometrial structures and, clinical picture did not fulfil the placental abruption diagnostic criteria. The case was misdiagnosed as twin pregnancy complicated by a tumor of fetal membranes, another rare entity. But during clinical observation, uterine contractions and abdominal cramp like pain are developed, and pregnancy is terminated spontaneously by preterm labor. After the delivery of fetuses, placentas and fetal membranes expelled spontaneously. Gross and microscopic examination revealed that previously defined mass lesion was a subamniotic hematoma. We would like to stress that when a mass lesion located on or between the membranes is detected subamniotic hematoma should be kept in mind in differential diagnosis.

#### FCP101

##### **FETAL-MATERNAL HEMORRHAGE AFTER AMNIOCENTESIS OR CORDOCENTESIS – IMPLICATIONS ON THE TREATMENT OF RH-ALLOIMMUNIZED PREGNANCY**

**Mikovic Z., Janic D., Mandic V., Hajric A., Cirovic A.,** *Ob-Gyn Clinic Narodni Front, Belgrade -Yugoslavia*

Objective: Amniocentesis and cordocentesis are invasive procedures used in prenatal diagnosis and treatment generally, including Rh-alloimmunized pregnancies. However, these methods can cause considerable

rable fetal-maternal hemorrhage (FMH), worsening of the existing, or appearing of the new aloimmunization. Our aim was to compare the frequency and amount of the FMH after amniocentesis or cordocentesis; evaluate if transplacental approach increases the risk for the appearance of FMH; and show the significance of the results in the treatment of the Rh-aloimmunized pregnancies.

**Methods:** We studied 61 pregnant women who underwent invasive prenatal diagnostic procedures. The presence of "irregular" antibodies was not registered in any of the pregnancies, no matter to their D-antigen status (Rh-positive or Rh-negative). Amniocentesis was done in 33, while cordocentesis in 28 cases. Anamnestic data of previous bleeding and invasive procedures in two months period were registered. After each intervention we registered if placenta was penetrated. We preferred extraplacental approach. For the detection of FMH, Kleihauer-Braun-Betke "acid elution test" (KBBT) was used in mother blood samples taken immediately before and 1 hour after the intervention.

**Results:** All pregnant women were older than 35 years. Average gestation was smaller in amniocentesis subgroup. Before the intervention we registered FMH in only one case of amniocentesis (1.6%). Amount of FMH was 0.05ml and didn't change after the intervention. We considered this FMH "silent" because there was no data of previous bleeding or invasive procedures. Previous bleeding was noted in 7, while invasive procedures were done in 12 cases, but FMH wasn't registered before the intervention in any of these cases. We registered new FMH in 2 cases after amniocentesis and 8 after cordocentesis (6.1: 28.6%) which shows statistical difference. After the cordocentesis we found higher mean FMH volume, more frequent severe FMH (> 5ml of fetal blood), increased percentual loss of total fetal-placental blood volume. FMH is more frequent following the transplacental approach (27.8%) comparing with the extraplacental (11.6%), but there is no statistical difference. During the cordocentesis FMH is more frequent following transplacental approach (33.3%: 23.1%), but there is no statistical difference. Two largest quantities of FMH were found in two cases of cordocentesis in which we punctured through placenta twice.

**Conclusions:** Cordocentesis is a method with increased risk for the worsening of the preexisting or the appearance of the new aloimmunization comparing with the amniocentesis. Therefore in Rh-aloimmunized pregnancy cordocentesis is justified under the suspicion of severe anemia and the need for FIVT. Clinical significance of the KBBT is to individualize the anti-D-immune globulin immune-prophylactic dose; after the cordocentesis in D-negative nonimmunized mother, KBBT should be done, and if necessary, increase the dose of Rhlg.

## FCP102

### COLOR DOPPLER IN THE DIAGNOSIS OF FETAL ANEMIA IN PREGNANCY COMPLICATED BY RHESUS ALOIMMUNIZATION

**Cirovic A., Mandic V., Mikovic Z., Cerovic N., Filimonovic D.,** *Ob-Gyn Clinic Narodni Front, Belgrade - Yugoslavia*

**Objective:** The diagnosis of fetal anemia is achieved either by amniocentesis or by cordocentesis. These invasive procedures are associated with complications, and, therefore, noninvasive methods are studied. During anemia the blood viscosity decreases and the blood velocity increases, so measuring medial cerebral artery (MCA) velocities can be useful in the prediction of fetal anemia. Our aim was to determine changes in MCA blood velocity of the anemic fetuses; relationship of these changes and fetal hemoglobin and haematocrit values; and to establish the significance of this method in the diagnosis of fetal anemia.

**Methods:** Clinical study was conducted during 1992-2000, and included 44 Rh-aloimmunised pregnant women who underwent cordocentesis in order to maintain fetal hemoglobin and haematocrit. Before the intervention we obtained MCA flow velocity waveforms of every fetus and registered pulsatility index (Pi) and mean velocity (Vmean). Only third trimester pregnancies (28-32. gestation weeks) with cephalic presentation were included in the study. MCA mean velocities were considered normal if ranged  $\pm$  21 cm/s. Based on the haematocrit all fetuses were divided in four groups: group 1-nonanemic ( $\geq$  140 g/l); group 2-mild anemia (120-139.9 g/l); group 3-moderate anemia (100-119.9 g/l); group 4-severe anemia, with the need for transfusion, ( $\leq$  99.9 g/l). We compared mean velocities between the groups and correlated