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 elusion 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 aloimmunizataion comparing with the amniocentesis. Therefore in Rh-aloimmunizated 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 RhIg.

FCP102

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

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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 pulsatily 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 ≤ 21 cm/s. Based on the haematocrit all fetuses were divided in four groups: group 1-nonanemic (≥ 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, (≤ 99.9 g/l). We compared mean velocities between the groups and correlated

mean velocities with the values of hemoglobin and haematocrit. Every fetus were taken only once in the study, no matter what the number of cordocentesis was.
Results: Of 44 fetuses, 15 didn't show the presence of anemia, 14 had mild anemia, 9 had moderate anemia, while severe anemia with the need for transfusion was registered in 6 cases. Mean velocity was: 18.33±0.78cm/s in group 1; 21.38±0.87cm/s in group 2; 22.67±1.12cm/s in group 3; and 24.85±1.44cm/s in group 4. All anemic fetuses had average mean MCA velocities higher compared to the nonanemic. In severe anemia mean velocities are higher than in moderate forms, showing statistical difference ($p<0.05$). Mean velocities are higher in severe forms showing negative correlation with hemoglobin and hematocrit values ($p<0.05$).
Conclusions: In Rh- aloimmunised pregnancies anemic fetuses have increased mean blood velocities in MCA, especially in the cases of severe anemia. There is a negative correlation between mean velocities and hemoglobin and haematocrit . We suggest measuring mean blood velocities of the fetal MCA in the diagnosis of fetal anemia and in the determination of the time for cordocentesis.

FCP104

PROFILE OF CONGENITAL MOLFORMATION AT CHENGALPATTU MEDICAL COLLEGE HOSPITAL RURAL BASED HOSPITAL IN SOUTH INDIA

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Background: This study is conducted in rural area where cansanguinous marriages very common. Marriages between cousins, between uncle and niece are often practiced in the rural part of this country.
Aim of the Study: To study in the congenital malformation (major and minor) in Chengalpattu Medical College Hospital.
Methods: Study Period: 1999-2000. Place of Study: Department pf obstetrics and Neonatal Unit, Department of Pediatrics at CMCH. The babies were examined by Pediatrician soon after birth and screened for major and minor malformations, investigations were done to an established to diagnosis and genetic screening were done by the Department of genetic Tharamani Government of TamilNadu. The results were collected and entered by research investigators and the data was analyzed using stata software.
Results: Among the congenital malformation 20% had cardiac disorders. 17% had GIT malformations, 6% had hydrocephalus and 10% had neural tube defect. Among the minor malformation 9% had cleft lip and cleft palate, 8% had limb defects.

FCP105

CYTOKINE LEVELS IN PREGNANT WOMEN WITH HYPEREMESIS GRAVIDARUM

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Introduction: Overactivation of maternal immune system or high concentrations of trophoblast-derived cytokines may be responsible for the onset of first trimester pregnancy pathologies, including hyperemesis gravidarum. However, to our knowledge, there is no study evaluating maternal serum cytokine levels in patients with hyperemesis gravidarum. In the present study, we evaluated maternal serum concentrations of IL-1β, IL-2R, IL-6, IL-8, and TNF-α levels in patients with hyperemesis gravidarum and compared the levels with those in the healthy pregnant and non-pregnant women.
Materials - Methods: Thirty women with hyperemesis gravidarum, 30 women with healthy pregnancies in the first trimester, and 30 non-pregnant women were enrolled in the study, prospectively. Maternal serum IL-1b, IL-2R, IL-6, IL-8, and TNF-α levels were evaluated using two-site chemiluminescent enzyme immuneometric assay method in the three study groups.