139 The change of plasma level of vasoactive prostanoids in patients with GDM. Y.Ikushima, N.Kubo, Y.Nakayama, Dept.Obst. and Genec. Chikugo City Hosp.,Fukuoka.

Since hemodynamics in diabetic patient has been characterized in part by an imbalance between prostacyclin and thromboxane, our interest was focused on the plasma level of these vasoactive prostanoids in patient with GDM, a manifestation of mild disarrangement of carbohydrate metabolism. The stable metabolite in blood,11-dehydro-thromboxane B_2(11-dehydro-TXB_2) and 6-keto-prostaglandin $F_{1\alpha}$(6-keto-$PGF_{1\alpha}$) were determined by RIA in gravidas with GDM (n=13), NIDDM (n=12) and normally pregnant women as control (n=91). The level of 11-dehydro-TXB_2 and 6-keto-$PGF_{1\alpha}$ were consistent during normal pregnancy. In patients with GDM the level of 11-dehydro-TXB_2 and 6-keto-$PGF_{1\alpha}$were significantly higher as compared with controls ($p<0.05$). The higher concentration of 11-dehydro-TXB_2 and 6-keto-$PGF_{1\alpha}$were found in gravidas with NIDDM. Fructuation of these compounds were
revealed during 75g oral glucose tolerance test but the change were not statistically significant. The findings indicate that impairments of platelet and vascular endothelial function appear to occur in patient with GDM.

140 A study on serum levels of 1,5-anhydro-D-glucitol in pregnant women concerning to obstetrical complications and neonatal outcome. N.Kubo, Y.Ikushima and Y.Nakayama, Dept. Obst. and Gynec., Chikugo City Hospital, Fukuoka.

Serum levels of 1,5-anhydro-D glucitol(1,5-AG) in 413 pregnant women; 373 for normally pregnant women, 26 for women with diabetes mellitus (DM) and 14 for pregnant women with gestational diabetes mellitus (GDM) were evaluated in conjunction with obstetrical factors including age, body weight, metabolic status of glucose and maternal complications and neonatal body weight and morbidity. Serum 1,5-AG levels in all pregnant women by each trimester was determined and were classified into the following three groups; high levels(>M+1.5SD),intermediate levels(M±1.5SD) and low levels(<M-1.5SD) of groups. As a result, an analysis of levels of serum 1,5-AG in each trimester or pregnant status did not yield significant differences in maternal obstetrical factors and neonatal outcome. However, pregnant women with DM and GDM tended to have heavy-for-dates and light-for dates babies. The present study suggested that serum levels of 1,5-AG in pregnant women may not be affected by maternal factors and neonatal outcome induced by disarrangement of carbohydrate metabolism during normal pregnancy.

141 **Serun apoproteins levels in normal and complicated pregnancy.** H Sunagawa, S Takanaka, S Kono, Dept. Medical Care, Ryukyu Univ., Okinawa

The aim of this study is to clarify a physical and pathological significance of apoproteins in pregnancy and fetuses. In 230 subjects of normal, toxemic and obese pregnancies, maternal and cord serum apoproteins $apoA_1$, B and C_2 were determined by immunotubidimetric method. In normal pregnancy, maternal $apoA_1$ level increased markedly from 2nd to 3rd month and then increased gradually. ApoB and C_2 levels increased from 5th month of gestation. The apoB and C_2 levels were lower in cord vessels than in nonpregnant women, whereas $apoA_1$ level in the former were almost same as that in the latter. The maternal $apoA_1$, B, HDL-ch and T-ch levels were lower in toxemic and obese pregnancies than in normal pregnancy. The apo-C_2 and HDL-ch levels were lower in cord vessels of toxemic pregnancies than in normal pregnancy, whereas $apoA_1$ level was higher in the former than in the latter. These results suggest that apoprotein levels in the maternal and cord might well represent the states of maternal and fetal lipid metabolism and thier measurements have a diagnostic significance.