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Poster Sessions

Influence on bilirubin metabolizing enzyme liver function in fetus with antenatal glucocorticoid administration.

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Purpose : Bilirubin transport and metabolism in the liver of infants is insufficient, and physiological jaundice often occurs. The symptom of jaundice will become more severe in premature infants. Therefore, to investigate the bilirubin metabolism capacity in the liver of premature infants is necessary. Administration of antenatal glucocorticoid (GC) is the standard of care for women at risk of a preterm birth. The purpose of this study was to examine whether GC administration act on the development and effect on expressions of bilirubin metabolizing related factors in the fetal liver.

Methods : Dexamethasone were administered to pregnant rats for 2 days and the livers of 19-day-old fetuses, 21-day-old fetuses and 1-day-old neonates were analyzed. We evaluated mRNA levels of UGT1A1, albumin, BSEP, MRP2, ABCG5, ABCG8 and OATP1 by real-time PCR.

Results and Discussion : The mRNA levels of all bilirubin metabolism-related factors increased in 19-day fetuses of compared with those of 21-day fetuses. The mRNA expressions of UGT1A1 and albumin were increased in fetal liver administration antenatal GC. These results suggested that antenatal GC administration increases bilirubin excreting in the liver of premature infants.