



Low Serum Vitamin D levels in intrahepatic cholestasis of pregnancy

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Objective

Intrahepatic cholestasis of pregnancy (ICP) has been related with adverse maternal and perinatal outcome. There is increasing evidence that Vitamin D (Vit D) has a role in the pathogenesis of ICP as well as in other various liver diseases. We aimed to investigate the association between serum Vit D level and ICP.

Methods

Forty pregnant women with ICP and forty healthy pregnant controls were included in this cross-sectional study. The demographic characteristics (age, body mass index, gestational age at analysis, gravidity and parity) and laboratory parameters including 25 (OH) Vit D3 levels, liver function tests, fasting and postprandial bile acid concentrations were recorded. Gestational age at delivery, birth weight (BW), Neonatal Intensive Care Unit (NICU) admission, meconium staining of amniotic fluid and APGAR score at 5 minutes were obtained from medical records for assessment of perinatal outcome.

Results

There was no significant difference between groups in terms of demographic characteristics. Mean serum vit D level was significantly lower in pregnancies complicated by ICP compared to controls (8.6 ± 4.9 , vs. 11.3 ± 6.1 ; $p=0.033$) and was significantly lower in severe compared with mild disease (6.9 ± 2.1 and 10.3 ± 6.2 ; $p=0.029$ respectively). Lower vit D levels were inversely correlated with fasting and postprandial bile acid levels. However in subgroup analysis in ICP pregnant, there was no difference in mean vit D levels between the groups with normal vs. adverse perinatal outcome.

Conclusion

Our study suggests that vit D levels are associated with ICP and its degree of severity. Larger further studies are needed to explore vit D role in the pathogenesis and outcomes of ICP.