

Pregnancy in women with hemoglobin H disease in the Guangxi Zhuang Autonomous Region of southern China

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Abstract

Objective To investigate the fertility status and pregnancy outcome in women with hemoglobin H disease in southern China. **Design** Retrospective analysis. **Setting** The First Affiliated Hospital of Guangxi Medical University, Nanning, Guangxi Population 28 young women with Hb H disease. **Methods** Clinic characteristics were included during their pregnancies over a 12-year period and their babies' outcomes were assessed. Main outcome measures Genotype, methods of conception and delivery, complications during pregnancies, and frequency of transfusion. Hb and serum ferritin levels. Babies' birth weight, Apgar scores at 1 minute. **Results** Four genotypes, namely, $-\alpha/\alpha^{3.7}$, $-\alpha/\alpha^{4.2}$, $-\alpha/WS\alpha$, $-\alpha/QS\alpha$, and $-\alpha/CS\alpha$, were found among these women. The most frequent ethnic background was Zhuang (57.14%). 59 pregnancies occurred. 56 conceptions were spontaneous. Six pregnancies were terminated because of Hb Bart's hydrops fetalis. 44 resulted in successful deliveries of 46 neonates, and 17 were via cesarean section. The mean gestational period of delivery was 38 weeks, the rate of pregnancy complications was 50%. The majority of these women were never transfused before or during their pregnancy, except those with genotype $-\alpha/CS\alpha$. and the mean birth weight of the 46 neonates was 2815.00 ± 503.26 g. The mean hemoglobin concentration and median serum ferritin level were significantly decreased during the pregnancy. **Conclusions** Despite the good pregnancy outcome for women with Hb H disease, the pregnancy course is still considered high risk. Close monitoring of maternal and fetal conditions should be performed by multidisciplinary team to ensure the best outcome.

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