Pregnancy Outcomes in Women with Non-Transfusion Dependent Thalassaemia (NTDT): A Haematology Centre Experience

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Abstract

Non-transfusion dependent thalassaemia (NTDT) is a term used for thalassaemia patients who do not require lifelong regular transfusions for survival. Pregnancy in these women, whether spontaneous or through assisted reproductive technology, represents a challenge for the physician. The aim of this study is to review both maternal and foetal outcomes of patients with NTDT followed up in Ampang Hospital. Outcomes variables such as transfusion requirement, ferritin level pre- and post-pregnancy, maternal post-partum complications, fetal growth, birth weight and presence of congenital malformations were analyzed. The maternal and foetal outcomes of patients with NTDT followed up over 6 months period were studied. A total of 36 pregnancies in 26 pregnant women with NTDT were analyzed. All of the pregnancies in these women resulted in successful delivery of singleton live-born neonates. There were four clinically distinct forms of NTDT among these women which include Hb E/β-thalassemia (mild and moderate forms), HbH disease, HbH-Constant Spring, and homozygous δβ-thalassemia. No blood transfusion was needed in 15 out of the 36 pregnancies (41.6%). The lowest mean Hb level in which no blood transfusion was given was 8.21 g/dL. The mean of packed-cell units received during pregnancy was 6.95 units per pregnancy. There was no worsening of serum ferritin observed during pregnancy with mean serum ferritin pre- and post-pregnancy of 409.35 ug/L and 418.18 ug/L respectively. There was no report of thrombotic events during both antepartum and postpartum period. The mean gestational age at delivery was 38.6 weeks with no preterm delivery reported. The mean foetal birth weight was 2729g. There were no cases of intrauterine growth restriction (IUGR) or congenital malformation. There was a case of small for gestational age (SGA) and a case of oligohydramnios. This study shows that pregnancy is possible, safe and has a favorable outcome in patients with NTDT with multidisciplinary care.

Keywords: Non-transfusion dependent thalassaemia; pregnancy; maternal outcome; neonatal outcome

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