OUTCOME OF A PREGNANT WOMAN WITH POLYMORBIDITIES: A CASE REPORT

DESFECHO DE GESTANTE COM POLIMORBIDADE: RELATO DE CASO

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ABSTRACT

This case report describes the outcome of a pregnant woman with hypothyroidism and a methylenetetrahydrofolate reductase mutation, which is indicative of hereditary thrombophilia. The patient (W.S.R.) was 38 years old, postpartum, G1P1A0, and presented a history of pulmonary embolism one year ago. The exams diagnosed hypothyroidism and a heterozygous hereditary thrombophilia trait. She also presented extreme fatigue due to anemia, low insertion of the placenta, and lactose intolerance. At 35 weeks of pregnancy, an emergency cesarean section was performed with no complications for the fetus. Prenatal consultations are important for the active screening of morbidities that may cause complications for the mother and the fetus, as well as for ensuring multidisciplinary follow-up to promote favorable pregnancy outcomes.

Keywords: Pregnancy; Methylenetetrahydrofolate reductase; Hypothyroidism

RESUMO

Objetivo: Relatar desfecho de gestante com hipotireoidismo e mutação na metilenotetrahidrofolato redutase, indicativa de traço de trombofilia hereditária. **Relato de caso:** WSR, 38 anos, puérpera, G1P1A0, com histórico de tromboembolismo pulmonar há um ano. Os exames diagnosticaram hipotireoidismo e traço de trombofilia hereditária heterozigótica. Ela também apresentava placenta de inserção baixa, intolerância à lactose e cansaço extremo devido à anemia diagnosticada. Com 35 semanas, foi realizada cesariana de emergência, sem intercorrências com o feto. **Comentários:** Destaca-se a importância das consultas pré-natais na busca ativa de morbidades que possam causar intercorrências para as gestantes e o feto, além de acompanhamento multidisciplinar para proporcionar um desfecho favorável à gestação.

Palavras-chave: Gestação; Metilenotetrahidrofolato redutase; Hipotireoidismo

INTRODUCTION

Pregnancy is a physiological and natural event that is usually free of complications. However, the outcome is unfavorable for the mother and the fetus in about 20% of pregnancies1. Thus, all professionals providing obstetric care must be aware of risk factors and be able to detect them early2.

Identifying these factors that affect the health of women during pregnancy is essential to enable timely intervention, minimize their potential impact on maternal and fetal health, and improve overall outcomes1.

This case report aims to highlight the importance of early identification of hypothyroidism and hereditary thrombophilia in pregnant women with risk factors, to describe potential adverse outcomes when optimal treatment is not provided, and to emphasize the need for early management to prevent harm to the mother and the fetus.

CASE REPORT

The patient (W.S.R.) was a 38-year-old white woman in the postpartum period, G1P1A0, with a history of pulmonary embolism one year earlier. Laboratory tests confirmed hypothyroidism and a heterozygous hereditary thrombophilia trait. She also reported extreme fatigue due to anemia, presented a low-lying placenta, and lactose intolerance. The

patient denied smoking, alcohol use, and any family history of thromboembolic events. During prenatal consultations, the fetus showed no abnormalities, with adequate fetal heart rate and fundal height consistent with gestational age, and no complications. The patient was medicated with prophylactic enoxaparin sodium (40 mg daily) for venous thromboembolism, oral noripurum and glycine chelate iron supplements for anemia, and levothyroxine sodium (112 mg daily) for hormone replacement therapy in patients with hypothyroidism. She was also monitored monthly with laboratory testing and Doppler ultrasound. At 35 weeks and 2 days of pregnancy, an emergency cesarean section was performed due to reduced amniotic fluid, with no complications for the fetus. Two days after delivery, the mother developed a persistent fever without signs of infection, leading to a Doppler ultrasound request to rule out thrombosis.

COMMENTS

Hypothyroidism affects about 3% of pregnant women (two-thirds presenting with subclinical hypothyroidism). This condition is associated with maternal and neonatal complications, such as miscarriages, intrauterine growth restriction, and impaired fetal neurocognitive development, potentially resulting in intellectual disability and delayed neuropsychological development3,4. The enzyme methylenetetrahydrofolate reductase (MTHFR) is a key component in folate metabolism, and its deficiency may reduce serum levels of folate, vitamin B12, and methionine, while increasing homocysteine. Thus, researchers have suggested an association between the C677T mutation in the MTHFR gene and neural tube defects5. Hyperhomocysteinemia has also been associated with complications during pregnancy, such as placental abruption, placental infarcts, fetal death, severe preeclampsia, and severe intrauterine growth restriction6,7.

Hereditary thrombophilia is a genetic condition that increases the risk of thromboembolic events and may result from insufficient inhibition of the coagulation cascade, loss-of-function mutations, or gain-of-function mutations that increase coagulation activity8. In this case, the patient presented with a complex clinical profile that could have led to unfavorable outcomes; however, appropriate management and timely treatment ensured a favorable prognosis for both mother and child.

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