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A case of severe hypertriglyceridemia, systemic lupus erythematosus and antiphospholipid antibody syndrome in pregnancy

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Objective

To present a case of a 40-year old Gravida 2 Para 1 (0101) term patient, diagnosed with Gestational Diabetes Mellitus, Systemic Lupus Erythematosus and Antiphospholipid Antibody Syndrome, presenting with severe hypertriglyceridemia and fetal intrauterine growth restriction. The patient was previously tested positive for a rare autoantibody called anti-Glycosylphosphatidylinositol-binding protein 1 (anti-GPIHBP1), with less than 10 diagnosed patients worldwide, which prevents the action of lipoprotein lipase. A multidisciplinary approach was attempted and the patient underwent normal labor and delivery.

Methods

During the admission, a multidisciplinary team approach included perinatology, rheumatology, cardiology, hematology, and endocrinology services. After labor induction, using dinoprostone vaginal suppository, the patient eventually underwent labor and delivered via normal vaginal delivery under continuous labor support and local anesthesia.

Results

Contrary to her first pregnancy, there is a more aggressive management of lipid levels during this pregnancy, in order to prevent development of complications such as pancreatitis. Oral anti-lipid medication was given and regular monitoring of lipid levels was done. The course of labor and delivery were unremarkable. Blood transfusion was not indicated. The patient’s triglyceride level during the pregnancy was as high as 4, 901 mg/dL, despite anti-lipid medications given during the entire pregnancy. White depositions in the surface of the placenta and blood were noted. The patient delivered a live baby with an APGAR score of 9/9, ballard’s score of 37 weeks, birthweight of 2, 468 grams and a birth length of 47 cm, which was appropriate for gestational age. The placenta and the diameter of umbilical cord of the patient were noted to be grossly smaller than that of normal pregnancies.

Conclusion

Anti-GPIHB1 is a rare autoantibody that causes severe hypertiglyceridemia. In patients diagnosed with this antibody, especially in pregnant patients, close monitoring of lipid level, diet control, and maintenance with statin medications are warranted as to prevent complications. Systemic lupus erythematosus, Antiphospholipid Antibody Syndrome, and presence of elevated triglyceride levels may have caused intrauterine growth restriction. The presence of these three conditions—Systemic lupus erythematous, Antiphospholipid Antibody Syndrome, and severe hypertriglyceridemia—is what made this case rare, especially in view of a good pregnancy outcome. In addition, compared to her first pregnancy, this pregnancy was carried to term, providing a different approach to management. In patients with multiple comorbidities, provided a multidisciplinary team is available, pregnancy can be safe and usually has a favorable outcome.