



ANTI-PUBLIC ANTIBODIES AND PREGNANCY: A REAL DILEMMA

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Objective: A blood phenotype, also known as erythrocyte phenotype, is considered rare if it causes difficulties in supply. In this report, we present three cases of patients with the same rare phenotype.

Case report:

Patient 1: Mrs. GMB gravida 6 para 4, with one living child from the first pregnancy. The second delivery resulted in neonatal death with jaundice, while the third delivery the baby presented pleural and pericardial effusion, and subsequently died at two days of age. The patient had two spontaneous abortions thereafter. In the last pregnancy, she was diagnosed with a retroplacental hematoma and fetoplacental hydrops at 25 weeks of pregnancy, which ultimately led to neonatal death.

Explorations led to the diagnosis of an anti-public alloantibody targeting the antithetic antigens E and e.

Patient 2: Mrs. GMM gravida 5 para 4 with three living children. The third live birth was complicated with neonatal jaundice. Investigations suggested an anti-public alloantibody targeting the antithetic antigens E and e. The baby was transfused with a blood donation from the patient's sister (patient 3), and the evolution was favorable. The last two pregnancies were complicated by fetoplacental hydrops and resulted in stillbirths.

Discussion: The prevalence of rare phenotypes varies from one country to another. In France, a phenotype with a prevalence lower than 4/1000 is considered rare. The identification of patients with rare phenotypes is done either during a standard phenotyping in an incidental way, or on the occasion of a positive irregular antibody screening in pre-transfusion or during pregnancy, or when exploring recurrent fetal losses, and also when investigating the siblings of a patient having a rare phenotype. The risk is the development of an antibody directed against an antigen of high frequency, "anti-public," which may lead to a transfusion difficulty in procreation.

Conclusion: The anti-RH18 antibody is an anti-public antibody associated with a significant risk of maternal-fetal incompatibility and transfusion difficulties. The irregular agglutinin test should be prescribed systematically in pregnant women during the third month in order to improve diagnostic and therapeutic management.