

UNIT 2: OBSTETRICS
SECTION B: ABNORMAL OBSTETRICS

Educational Topic 19: Alloimmunization

Rationale: The incidence of maternal D alloimmunization has decreased in the past few decades. Awareness of the red cell antigen-antibody system is important to help further reduce the morbidity and mortality from alloimmunization.

Intended Learning Outcomes:

A student should be able to:

- Describe the pathophysiology and diagnosis of alloimmunization
- Describe the use of immunoglobulin prophylaxis during pregnancy for the prevention of alloimmunization
- Discuss the management of a patient with Rh-D sensitization in pregnancy

TEACHING CASE

CASE: A 32 year-old P1101 woman and her new husband present for prenatal care at 20 weeks gestation. Her past obstetric history is significant for a first child delivered at term following an abruption. Her second child died of complications of prematurity following in utero transfusions for Rh alloimmunization. Her initial prenatal labs this pregnancy indicate her blood type as A negative and an antibody screen positive for anti-D with a titer of 1:256. You discuss any additional evaluation needed, her risks in this pregnancy, and the plan of management with her and her husband.

COMPETENCY-BASED DISCUSSION & KEY TEACHING POINTS:

Competencies addressed:

- Patient Care
 - Medical Knowledge
 - Practice-Based Learning
 - Systems-Based Practice
1. What is Rh alloimmunization and what are the red cell antigens involved?
 2. What are the risk factors for Rh alloimmunization?

3. What is the mechanism for RhoGAM prophylaxis against Rh disease? What is the dose of RhoGAM? What is the recommended schedule for RhoGAM administration?

4. Could this patient's Rh alloimmunization have been prevented? What are the ways in which alloimmunization might be diagnosed? Is there any further blood work that should be obtained before you counsel this patient on her risks in this pregnancy? What are some ultrasound findings that may suggest Rh disease?

REFERENCES

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