Episode 20: RhoGAM

> What is hemolytic disease of the newborn?

> The RhoGAM story according to the official RhoGAM website

> Dr. Philip Levine: the man behind the medical breakthrough that would eventually lead to RhoGAM

> Example of scientific discovery in the 1930s: Scientist parents raise chimpanzee as a sister to their son in cruel and bizarre experiment.

> Dr. Jon F. Watchko's and his "street cred"

> Dr. Jon F. Watchko's full medical article questioning Dr. Levine's medical discovery that led to RhoGAM

> Excerpt Candace read from Dr. Watchko's medical article:

The diagnosis of ABO hemolytic disease of the newborn (ABO HDN) has been the subject of considerable debate and clinical confusion. Its use as an overarching default diagnosis for hyperbilirubinemia in all ABO incompatible neonates regardless of serological findings is problematic and lacks diagnostic precision. Data on hemolysis indexed by carbon monoxide (CO) levels in expired air (ETCOc) and blood (COHbc) support an essential role for a positive direct antiglobulin test (DAT) in making a more precise diagnosis of ABO HDN. A working definition that includes ABO incompatibility, significant neonatal hyperbilirubinemia, and a positive DAT is needed to gain clarity and consistency in the diagnosis of ABO HDN. Absent a positive DAT, the diagnosis of ABO HDN is suspect. Instead, a negative DAT in a severely hyperbilirubinemic ABO incompatible neonate should trigger an exhaustive search for an alternative cause, a search that may require the use of targeted gene panels.

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> Rhophylac FDA Insert

6 ADVERSE REACTIONS

The most serious adverse reactions in patients receiving Rh_0(D) immune globulin have been observed in the treatment of ITP. These reactions include intravascular hemolysis, clinically compromising anemia, acute renal insufficiency, and, very rarely, DIC and death (*see Warnings and Precautions [5.3]*).

The most common adverse reactions observed in the use of Rhophylac® for suppression of Rh isoimmunization are nausea, dizziness, headache, injection-site pain, and malaise.

The most common adverse reactions observed in the treatment of ITP are chills, pyrexia/increased body temperature, and headache. Mild extravascular hemolysis (manifested by an increase in bilirubin and a decrease in hemoglobin) was also observed.

6.2 Postmarketing Experience

Because postmarketing reporting of adverse reactions is voluntary and from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to product exposure. Evaluation and interpretation of these postmarketing reactions is confounded by underlying diagnosis, concomitant medications, pre-existing conditions, and inherent limitations of passive surveillance.

Suppression of Rh Isoimmunization

The following adverse reactions have been identified during postapproval use of Rhophylac® for suppression of Rh isoimmunization: hypersensitivity reactions, including rare cases of anaphylactic shock or anaphylactoid reactions, headache, dizziness, vertigo, hypotension, tachycardia, dyspnea, nausea, vomiting, rash, erythema, pruritus, chills, pyrexia, malaise, and, rarely, diarrhea and back pain. Transient injection-site irritation and pain have been observed following intramuscular administration.

ITP

Transient hemoglobinuria has been reported in a patient being treated with Rhophylac® for ITP.

17 PATIENT COUNSELING INFORMATION

17.1 Both Indications

Allergic Reactions

Inform patients of the early signs of allergic or hypersensitivity reactions to Rhophylac® including hives, chest tightness, wheezing, hypotension, and anaphylaxis (*see Warnings and Precautions [5.1]*) and advise them to notify their physician if they experience any of these symptoms.

Transmissible Infectious Agents

Inform patients that Rhophylac® is made from human plasma (part of the blood) and may contain infectious agents that can cause disease (e.g., viruses and, theoretically, the CJD agent). Explain that the risk that Rhophylac® may transmit an infectious agent has been reduced by screening the plasma donors, by testing the donated plasma for certain virus infections, and by inactivating and/or removing certain viruses during manufacturing (*see Warnings and Precautions [5.1]*).

Live Virus Vaccines

Inform patients that administration of immunoglobulin may temporarily impair the effectiveness of live virus vaccines (e.g., measles, mumps, rubella, and varicella) and to notify their immunizing physician of recent therapy with Rhophylac® (*see Drug Interactions [7.1]*).

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Pregnancy Category C. Animal reproduction studies have not been conducted with Rhophylac®.

Suppression of Rh Isoimmunization

The available evidence suggests that Rhophylac® does not harm the fetus or affect future pregnancies or reproduction capacity when given to pregnant Rh_0(D)-negative women for suppression of Rh isoimmunization.

ITP

Rhophylac® has not been evaluated in pregnant women with ITP.

8.3 Nursing Mothers

Suppression of Rh Isoimmunization

Rhophylac® is used in nursing mothers for the suppression of Rh isoimmunization. No undesirable effects on a nursing infant are expected during breastfeeding.