

How Blood Cell Incompatibility Can Affect a Morning Sickness

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Abstract

Background: Nausea and vomiting of pregnancy is a common and somewhat serious condition that affect the health of pregnant woman and her fetus. It can affect a woman's quality of life and also the cost of health care and time loss through daily life. Since morning sickness is common in early pregnancy, yet the mechanism is not clear scientifically. In addition, some women do not seek treatment because they have worried about and avoid the medications in order not to affect new progeny.

Introduction: The etiology of pregnancy with nausea and vomiting (NVP) is difficult to explain for its mechanism. Several theories have been proposed, hormonal regulation, evolutionary adaptation and psychological predisposition. It has also been claimed that nausea and vomiting by pregnancy is an evolutionary adaptation that has evolved to the woman and her fetus from the foods she potentially dangerous. More problem factor might be knocked the idea that no serious notification to the male side to work out through for this topics.

Objective: The purpose of this script is to discuss the mechanism of individual difference of nausea and vomiting in pregnant ladies in order to find some possibility of combination to the incompatibility of blood cell both re and/or white one. So, we have to discuss and find for avoid to reduce the combination of parent with risk for PNV through blood cell type, both for RBC, WBC, Rh(D).

Method: With obstetrics and gynecology pregnancy, nausea and vomiting practice bulletin gravidarum has been linked to the death of mothers or permanent neurological disability. In addition to the increase in hospital admissions, some women social morbidity caused by pregnancy vomiting, a decision on abortion. A systematic review of mental morbidity in relation to hyperemesis gravidic shows highest scores for depression and anxiety scale in women on the condition. However, these results are limited high heterogeneity between studies and its pregnant incidence. The severity of nausea and vomiting dictates its effect an embryo and a fetus. In case of mild or moderate vomiting, there are hardly any obvious effects on the outcome of pregnancy. Studies have a lower miscarriage rate in case of nausea and vomiting of pregnancy and hyperemesis of the graph compared to the controls. This result is supposed to be a robust placental synthesis in a healthy pregnancy rather than a protective effect of vomiting.

Statistical Analysis: This study was a pilot study to determine the appropriate sample size required for a large-scale randomized semi-clinical trial of individuals. In a previous study that assessed the efficacy of a similar intervention, the minimum required sample size was 16 for each arm of the study. A p-value of less than 0.05 was considered to be statistically significant. Statistical analyses were performed using SPSS 22.0 (IBM, Chicago, IL, USA).

Results: A systematic review of mental morbidity in relation to hyperemesis gravidic shows highest scores for depression and anxiety scale in women on the condition. However, these results are limited high heterogeneity between the parent studies and its pregnant incidence. The severity of nausea and vomiting dictates its effect an embryo and a fetus.

Conclusion: The severity of nausea and vomiting dictates its effect an embryo and a fetus. In case of mild or moderate vomiting, there are hardly any obvious effects on the outcome of pregnancy. Studies have a lower miscarriage rate in case of nausea and vomiting of pregnancy and hyperemesis of the graph compared to the controls. This result is supposed to be a robust placental synthesis in a healthy pregnancy rather than a protective effect of vomiting.

Keywords: Pregnancy; Nausea and Vomiting of Pregnancy; NVP; Individual Difference; Pregnant History; Blood Cell Type; RBC; WBC; Rh(D); MHC

Introduction

The etiology of pregnancy with nausea and vomiting is difficult to explain for its mechanism. Several theories have been proposed, hormonal regulation, evolutionary adaptation and psychological predisposition. It has also been claimed that nausea and vomiting by pregnancy is an evolutionary adaptation that has evolved to the woman and her fetus from the foods she potentially dangerous [1]. This theory may die temporary against the tastes and smells that are pregnant experience of women [2]. Proponents of adaptation theory of nausea and vomiting in pregnancy claimed that as in healthy.

Purpose of the Study

The purpose of this script is to discuss the mechanism of individual difference of nausea and vomiting in pregnant ladies in order to find some possibility of combination to the incompatibility of blood cell both re and/or white one. So, we have to discuss and find for avoid to reduce the combination of parent through blood cell type, both for RBC, WBC, Rh(D).

Method

Statistical analysis

This study was a pilot study to determine the appropriate sample size required for a large-scale randomized semi-clinical trial of individuals. In a previous study that assessed the efficacy of a similar intervention, the minimum required sample size was 16 for each arm of the study. A p-value of less than 0.05 was considered to be statistically significant. Statistical analyses were performed using SPSS 22.0 (IBM, Chicago, IL, USA).

With obstetrics and gynecology pregnancy, nausea and vomiting practice bulletin gravidarum has been linked to the death of mothers or permanent neurological disability [3]. In addition to the increase in hospital admissions, some women social morbidity caused by pregnancy vomiting, a decision on abortion. A systematic review of mental morbidity in relation to hyperemesis gravidic shows highest scores for depression and anxiety scale in women on the condition [4]. However, these results are limited high heterogeneity between studies and its pregnant incidence. The severity of nausea and vomiting dictates its effect an embryo and a fetus. In case of mild or moderate vomiting, there are hardly any obvious effects on the outcome of pregnancy. Studies have a lower miscarriage rate in case of nausea and vomiting of pregnancy and hyperemesis of the graph compared to the controls. This result is supposed to be a robust placental synthesis in a healthy pregnancy rather than a protective effect of vomiting.

Results

Differential nausea

A systematic review of mental morbidity in relation to hyperemesis gravidic shows highest scores for depression and anxiety scale in women on the condition. However, these results are limited high heterogeneity between the parent studies and its pregnant incidence [5]. The severity of nausea and vomiting dictates its effect an embryo and a fetus.

Diagnosis of and Pregnancy vomiting gastrointestinal diseases, gastroenteritis, gastroparesis achalasia bile duct disease, hepatitis bowel obstruction, stomach ulcer disease, pancreatitis, appendicitis, genitourinous tract conditions, pyelonephritis, uremia, ovarian twist, kidney stones, degenerate uterleiomyoma, metabolic conditions, diabetic ketoacidosis, porphyria Addison's disease, hyper thyroid inflammation, hyper para-thyroidism, neurological disorders pseudo tumor-cerebri, vestibular injuries, migraine central nervous system tumors, lymphocytic pituitary glitis different conditions drug toxicity or intolerance psychological conditions pregnancy-related diseases acute fatty liver of pregnancy Preeclampsia [6,7].

If a patient experiences nausea and vomiting for the first time after 10 weeks of pregnancy, other conditions should be carefully considered in differential diagnosis [8]. A history of a chronic illness related to nausea and vomiting to be sought before pregnancy [9]. Rare cases of hyperemesis of the world associated with Mendelian hormonal disorder receptor interaction and mitochondrial disorders suggest that at least part of hyperemesis is caused by discrete disease conditions, dying during pregnancy, or exacerbating. Several physical findings indicate that other diseases other than pregnancy nausea and vomiting such as the cause of nausea and vomiting [10].

Biological significance of morning sickness

In this sub title, we would like to discuss about a biological significance of morning sickness.

A morning sickness is one of significant regulational bias from mother to her offspring.

The almost all the parents including relevant member would like to get their offspring, so they do welcome their baby in her uterus. However, why the mother make a regulational bias to her offspring?

One of the fundamental reason may be save their life both mother and her offspring successfully. If there is no bias for growth of her offspring, the offspring growth exponentially in the uterus. So, the mother can't maintain her regulatory activity as living individual. More, the mother do not get safe delivery from her uterus in an appropriate size in the path finding from uterus. Therefore, the offspring could appropriate tight shape in the uterus.

Blood cell matching

Red blood cell

The surface antigen that explain the RBC markers were exogamic or indefinable structure. This character reveal to induce anti RBC antibodies which interfere the transfusion of blood [12]. The gene that regulated the surface marker were somewhat simple for search the matching of the blood transfusion. In other word, there are some combination to accept blood transfusion through red blood cell type (Table 1).

Blood Cell Type (ABO)	Blood Type Molecule	Genotype	Agglutinin/Antibody
A	A	aa, ao	anti-B
B	B	bb, bo	anti-A
AB	AB	ab	Nil
O	O	oo	anti-A, anti-B

Table 1: ABO blood cell type by Landsteiner.

White blood cell

While white blood cell type was hard to find the matching type, except one germ twin.

Therefore, blood cell matching pregnancy is not available, for one-germ twin develop the same sex of twin. Since the pregnancy is not a trouble condition rather than by the normal physiology, but immunological regulation is clearly work by the immune system that regulate to check not-self substance [13]. The not-self substances came from the gen by better half of the baby.

It is possible to propose the individual difference of morning sickness may depend on the percentage of MHC molecule between moth and baby who had different genetic products from their imaged partner (Table 1 and 2).

Bridal BC Type	Desire Half	*Evasive Half
A	A, O	B, AB
B	B, O	A, AB
AB	A, B, AB, O	Nil
O	O	A, B, AB
WBC	Half matched MH	Complete different MHC

Table 2: Ideal combination (ABO/WBC Type).

*: A serum antibody to Rh(D) blood type better to check for Caucasians.

We close up only to ABO blood type, because only 0.01% of Rh(D) type in Asian Race compare than Caucasians.

ABO blood cell type

According to the report by Landsteiner, four type were nominated according to the criteria.

Ideal combination (ABO/WBC Type) for inviting a stoke

A theoretical background were summarized in table 1.

The etiology of pregnancy nausea and vomiting is difficult to explain. Several theories have been proposed, hormonal stimulus, evolutionary adaptation and psychological predisposition Evolutionary adaptation. It has also been claimed that nausea and vomiting from pregnancy is an evolutionary adaptation that has evolved to the woman and her fetus from the foods she potentially dangerous [27]. This theory may die temporary against the tastes and smells that are pregnant Experience of women. Proponents of adaptation theory nausea and vomiting of pregnancy as healthy. Differential nausea: diagnosis of and Pregnancy vomiting Gastrointestinal diseases Gastroenteritis Gastroparesis Achalasia Bile duct disease Hepatitis Bowel obstruction Stomach ulcer disease Pancreatitis Appendicitis Genitourinous tract conditions Pyelonephritis Uremia Ovarian twist Kidney stones Degenerate Uterleiomyoma Metabolic conditions diabetic ketoacidosis Porphyria Addison’s disease Hyper Thyroid inflammation hyper parathyroidism Neurological disorders Pseudo Tumor-Cerebri Vestibular injuries Migraine Central nervous system tumors Lymphocytic pituitary glitis Different conditions In many studies, patients with hyperemesis-graviesis, graviesis with other degrees of nausea and pregnancy women. As hyperemesis is likely gravidarum is part of the continuum of nausea pregnancy vomiting, the next discussion treatment for all stages of this disease. Protective response to pregnancy.

Gene purification and preparation of tumor bearing host

In a laboratory animal, it is necessary to purify the gene copies in order to use organ transplantation such in blood cell, skin and other organs etc.

In the fundamental medical laboratory, sometime need to prepare pure strain animals, such as mice, rat etc. With these animals, the researcher can set up cancer animal for the experimental system selecting a chemotherapeutic agent, transplanted by syngeneic tumor to the host animals.

If it is not enough compatibility between and transplanted tumor, the fate of cancer cell may be clear, rejecting transplant antigen rather than tumor specific antigen.

Blood cell matching

Red blood cell

The surface antigen that explain the markers of RBC were exogamic, therefore indefinable structure to the antigen recognition system of one's immune system. This character reveal to induce anti RBC antibodies which interfere the transfusion of blood in human as well as experimental animals [12]. The gene that regulated the surface marker were somewhat simple for search the matching of the blood transfusion. In other word, there are some combination to accept blood transfusion through red blood cell type (Table 1).

White blood cell and incompatibility

While, white blood cell type was hard to find the matching type, except an identical twin/one germ twin.

Therefore, white blood cell matching pregnancy is not available, for identical twin develop the same sex of twin. Since the pregnancy is not a trouble condition rather than by the normal physiology, but immunological regulation is clearly work by the immune system that regulate to check not-self substance [13-15]. The not-self substances transcribed from the gen by a better half of the baby.

It is possible to propose the individual difference of morning sickness may depend on the percentage of MHC molecule between mother and baby who had different genetic products from their imaged partner [16-19].

Discussion

There are many traditional messages for getting pregnancy especially around dynasties. More important thing was to prepare male baby for the princes who desired to control each dynasty through her young. Anyway, 100% success was notable to further announcement who would like to conceptive. This report concerned only for Japan, Asian race. A small number of Rh minus type was found in the surface of red blood cell [20]. So, this report was referred as one suggestive report. It is necessary to recruit for consecutive approach in Caucasians. However fundamental contents was coincided in Asian and European. As was a few % of Rh(D) positive type, European races should consider the anti Rh antibody that more impact as antigenicity than A and/or B antigen [21]. With the matching possibility, Asian race contain almost Rh(D) type, but not in Caucasians one. So more narrow matching between female and male was found by blood cell type [22]. So, the significance of this report was much more important based on this suggestion. Anyway, further problem was to check simultaneously to evaluate serum antibody level [23].

Conclusion

1. Check the blood cell type during matchmaking.
2. Try to avoid the blood cell type of counterpart that can make antibody to Type specific antigen molecule.
3. To the final step, the appropriate contraceptive devise had to employ if necessary for down regulating the anti-spermatozoa antibody.
4. The infertility condition, if any, have to checked the blood cell type each other whether she was in combination to make anti-ABO antibody. Then the appropriate contraceptive devise had to employ if necessary for down regulation the anti-spermatozoa antibody.

Conflict of Interest

We declared none for this report.

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