

University of Medicine and Pharmacy of Craiova
Doctoral School

THESIS
OBSTETRICAL HEMORRHAGIC SYNDROME IN
INSERT ANALYSIS AND PLACENTAL STRUCTURE
- SUMMARY -

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INTRODUCTION

Obstetric hemorrhage is associated with an increased risk of severe maternal morbidity and mortality. Postpartum hemorrhage (PPH) is the most common form of obstetric hemorrhage, and worldwide, a woman dies from massive postpartum hemorrhage about every 4 minutes.

In addition, after hemorrhage, many women experience severe morbidity, such as multiple organ failure, complications of multiple blood transfusions, peripartum hysterectomy, and unintentional pelvic organ damage, loss of fertility, and psychological sequelae, including posttraumatic stress disorder. .

In this context, I consider useful a study to analyze the risk factors that were correlated with severe postpartum hemorrhage in probably the most common placental pathology associated with obstetric hemorrhagic syndromes, namely, placenta previa, trying to establish a model for predicting severe hemorrhage. postpartum, derived from clinical and imaging results, to

guide obstetricians to accurately assess severe bleeding and to prepare treatment strategies for patients with severe postpartum hemorrhage.

OWN CONTRIBUTIONS

WORKING HYPOTHESIS and OBJECTIVES

In this research we set several specific objectives, which would allow the achievement of the initial proposed goal and the subsequent elaboration of conclusions derived from the results obtained from the study, with a high degree of objectivity and representativeness.

Having as origin the desideratum evoked previously, together with the team led by the doctoral supervisor, we proposed that in this doctoral thesis to carry out in a first stage a clinical study, in order to investigate the existence of correlations regarding the influence of insertion and placental structure on pregnancy in general and on obstetric hemorrhagic syndrome.

In a later stage of the research we considered it an objective to study the impact of clinical situations associated with obstetric hemorrhage, by careful analysis and correlation of these data with ultrasonographic study, macroscopic morphological study, where possible, microscopic and immunohistochemical research of placental elements.

Finally, I proposed a comprehensive and integrated approach to these objectives, in order to generate a broad perspective on maternal-fetal management in the context of obstetric hemorrhagic syndrome associated with placenta praevia, in order to generate the main objective of this doctoral theses, namely the generation of a model to be able to predict severe postpartum hemorrhage, a model derived from clinical and imaging information.

This model could guide obstetricians in accurately assessing severe bleeding and preparing treatment strategies for patients with severe postpartum hemorrhage.

MATERIAL AND METHOD

This doctoral research study, conducted both retrospectively and prospectively, was conducted between October 2014 and March 2019, on a study group consisting of 103 selected pregnant patients diagnosed with placenta praevia. Patients with surgical disease, fetal hypoplasia, and incomplete clinical and ultrasound information were excluded, resulting in 82 patients included in the study.

The cases included in the study groups were selected from the case studies of the Obstetrics-Gynecology Department of the "Caritas" Hospital Roşiori de Vede and the private practice of the Obstetrics-Gynecology office "Dr. Caraveţeanu Dragoş Cristian" and the private practice of 2 other Obstetrics offices Gynecology in Teleorman County.

RESULTS. DISCUSSION. CONCLUSIONS

This study suggests that placenta previa is a major risk factor for severe postpartum hemorrhage.

With the increase in the number of cesarean operations nationwide, the consequent increase in the incidence of placenta previa has led to a significant increase in severe postpartum hemorrhage.

The established model we generated predicted severe postpartum hemorrhage in patients with placenta previa based on independent risk factors for severe postpartum hemorrhage and included clinical and ultrasonographic data. The sensitivity and specificity of the model was 73% and 90%, respectively.

Obstetricians could effectively use this model to determine the risk of severe postpartum hemorrhage in patients with placenta previa.

In this study, risk factors for severe postpartum hemorrhage included age, number of pregnancies, number of births, number of miscarriages, history of vaginal birth, history of cesarean section, surgical complications, body mass index before pregnancy, number of fetuses, number of weeks at termination of pregnancy, the presence of uterine fibroids, types of placenta praevia, depth of placental invasion blood transfusions.

Specific statistical analysis indicated that age, number of births, number of abortions, history of vaginal birth, weeks of pregnancy, depth of relationship between placenta and uterine muscle wall, and blood transfusion during birth were independent risk factors for severe postpartum hemorrhage.

Ultrasonography is the main tool for diagnosis in women at risk of bleeding, such as those with a previous placenta or previous cesarean sections, with a general diagnostic accuracy in identifying the depth of placental invasion with sensitivities over 80%.

The limitations of the study were generated by the fact that it was a single center study and may not be representative, and the clinical strategies may not fully comply with the established guidelines. Second, this study was retrospective in nature.

The prediction model we established for severe postpartum hemorrhage in the placenta previa had high sensitivity and specificity and we consider that it may represent a starting point for clinical application.

By analyzing the data of patients diagnosed with placenta previa in the last 6 years in our area, independent risk factors for severe postpartum hemorrhage in the placenta previa were established and used in our model.

Based on clinical information, the model reduced the subjective reliance on clinical experience and had predictive accuracy and could therefore be clinically applicable.

We believe that our model will help obstetricians prepare and reduce severe bleeding and mortality in pregnant women with placenta previa.