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HELLP SYNDROME AND NURSING MANAGEMENT CARE: A REVIEW STUDY

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ABSTRACT

Hellp syndrome has been coursing with high maternal and perinatal morbidity and mortality, and is known as a serious complication of pre-eclampsia, coming from gestational hypertension. In most cases, a pregnancy interruption is necessary as a way to cure the disease. This study is a narrative review with a descriptive approach that hás allowed the compreehension and interpretation of Hellp syndrome made from analyzed studies during the period of march to april in 2017, through the descriptor "Hellp syndrome". For this review, studies publishe datthe BVS database were explored, with the selection of 16 articles that contributed in a relevant way to this study. During the analysis and discussion of the articles, it was noticed the existence of a controversy about the diagnostic and conduct criterion of this syndrome, once its physiopathology still isn't widely known and its symptoms can be confused with other pathologies. Beyond that, there is still questioning about the use of corticosteroid for fetal lung maturation supported by many authors, however, it Will depend on the pregnant woman's framework of stability and if her pregnancy is viable. It is relevant to emphasize the importance of this study in outlining the assistance made by nurses during the prenatal care, highlighting the importance of investigative propaedeutic for the diagnosis of Hellp syndrome.

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INTRODUCTION

Hellp syndrome is a serious complication of preeclampsia and can lead to maternal and also fetal morbidity and mortality. It can occur due to the delay in its diagnosis and in the resolution of labor, with a negative outcome. This syndrome was first described in 1982 by Weinstein and is characterized by hemolytic anemia, hepatic impairment and thrombocytopenia, in which the incidence varies from 2 to 12% and develops from severe preeclampsia (GANEM, CASTIGLIA, 2002). The challenge found in this syndrome is early diagnosis, timely intervention and prevention of complications. Therefore, "patients with suspected Hellp syndrome should be referred to a tertiary care service to be assisted by a specialized team, and as soon as possible, the interruption of gestation should be promoted" (FONSÊCA *et al*, 2007). In this perspective, the interest for research, personal, comes from an experience lived by a close relative of one of the researchers and that has had drastically negative consequences, and that is justified by providing and promoting a greater understanding and management of this syndrome so that the nurse can take care that provides extended and effective care for the pregnant woman and her baby.

The problem revolves around the possibility of questioning about what knowledge of Hellp syndrome to promote nursing care?

In view of this, this article had as main objective, to know the syndrome Hellp to promote the nursing care. Following the specific objectives: to show the importance of the research propaedeutics for the diagnosis of Hellp Syndrome; evaluate

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early diagnosis, timely intervention and prevention of complications of the syndrome; to identify the care that can be performed by the nursing team to pregnant women with the syndrome.

Review of the Literature

Gestational hypertension: Gestation is a very important and important period in a woman's life, and for it to develop well it is necessary to take care to avoid complications, as these can cause harmful consequences for both the mother and the baby. Thus nursing care becomes essential with respect to the diagnosis and behaviors that should be adopted and that are summarily significant for the positive outcome of pregnancy. According to Angonesi; The definition of hypertension in pregnancy is systolic blood pressure greater than or equal to 140 mmHg or diastolic blood pressure greater than or equal to 90 mmHg, to confirm this change, the average of two measures in the same arm, 4 hours after the first arm. In Brazil, in 2012 and 2013, hypertension was the main cause of maternal death, accounting for 20% of all deaths, with pre-eclampsia and eclampsia as the major impact on maternal and neonatal morbidity and mortality (ALMEIDA *et al*, 2015). It is important to note that hypertensive diseases during gestation include gestational hypertension (without proteinuria), pre-eclampsia (hypertension with proteinuria) and eclampsia (preeclampsia with seizures) (MIRANDA *et al*, 2016).

Pre-eclampsia and Eclampsia: Pre-eclampsia is a disease with etiopathogenesis still unknown and affecting the liver system. From the endothelial lesion, fibrin deposition is observed in the sinusoids between the hepatocyte plaques, determining platelet aggregation and consequent thrombocytopenia, according to Pollo-Flores *et al* (2015). With respect to eclampsia, this corresponds to pre-eclampsia complicated by seizures that can not be attributed to other causes explains Almeida *et al* (2015). Consequently, this is the most severe form of hypertension during pregnancy, defined as the manifestation of one or more seizures in the pregnant woman with preeclampsia.

MATERIALS AND METHODS

The method of designing the research used to carry out this study was the literature review. According to Marconi and Lakatos (2008), "this type of research is developed from material already elaborated, consisting mainly of books and scientific articles". In order to carry out this review, researches published in the VHL database were searched: LILACS (Latin American and Caribbean Literature in Health Sciences), MEDLINE (Medical Literature Analysis and Retrieval System Online), BDENF (Nursing), CidSaúde (Healthy Cities), DeCS (Descriptors in Health Sciences) and LIS (Health Information Locator). A bibliographic reference search with a descriptive approach, which allowed the understanding and interpretation of HELLP syndrome from the studies analyzed from March to April 2017, sought to access the descriptor "HELLP syndrome", with the results of other descriptors that were associated with "gestational hypertension", "pre-eclampsia" and "eclampsia". The total of localized articles resulting from the search were 2,121, being (LILACS: 232, MEDLINE: 1813, BDENF: 3, IBECS: 58, CUMED: 11, DeCS: 01 and LIS: 01). In order to establish exclusion criteria, refinement was made in the search, based on exclusion criteria, addressing those with full text availability, published in the Portuguese language and in the last 15 years (2002-2017). After reading the papers, we selected the 16 most relevant for the preparation of this study.

RESULTS AND DISCUSSION

The HELLP syndrome is an acrostic given to one of the most severe forms of gestational hypertensive disorders, established by the presence of hemolysis, elevated liver enzymes and low platelets, in which Souza *et al*. 2009) believe that this syndrome is a continuum of severe pre-eclampsia. It is considered by several authors as a multi-systemic picture of severe preeclampsia, although about 15% of patients with HELLP never have hypertension and proteinuria (NUNES *et al*, 2005). In the works of Oliveira; Vasconcelos (2006), obstetricians consider this syndrome, the complication of higher morbidity and mortality. And in Brazil, hypertensive syndromes, especially in their severe forms, such as eclampsia and complications due to HELLP syndrome, are the main causes of maternal and perinatal death. However, authors like Castro *et al* (2004) point out in their studies that they have not established the real reasons why some patients with pre-eclampsia or eclampsia develop microangiopathic hemolytic complications, platelet activation and consumption, fibrin deposition in hepatic sinusoids with formation of areas of hepatocellular necrosis.

Incidence, Classification and Risk Factors: The Hellp Syndrome constitutes pathology, in the puerperal pregnant cycle, of high morbidity and mortality; a rare condition that is life-threatening and occurs between 0.2% and 0.6% of pregnancies, in which some develop only one or two of the characteristics of the syndrome, Oliveira *et al* (2012) state.
In this condition, Castro *et al* (2004) emphasize that perinatal mortality occurs in about 35% of cases, depending on the gestational age and severity of the syndrome, in which complications include disseminated intracellular coagulation in 20% of cases, placenta in 16%, acute renal failure in 7% and acute pulmonary edema in 6% of cases. In terms of incidence, the studies presented by Pollo-Flores *et al* (2015, p.222) show that perinatal mortality is around 10-60%, and maternal mortality in 1.5-5% of cases , being infrequent before the 27th week of pregnancy, and occurring in about 30% of the time in the puerperium. Although any pregnant woman may develop HELLP syndrome, some women are at greater risk, including those who: are white; are over 25 years of age; have already given birth previously (multiparous); have problems of variation in blood pressure (systemic arterial hypertension), present pre-eclampsia or eclampsia (OLIVEIRA *et al*, 2012).
Pollo-Flores *et al* (2015) agree with Oliveira *et al* (2012) regarding the occurrence of the syndrome that usually occurs in the third trimester, although this condition sometimes develops in the second trimester or the week after delivery, in which the prognosis reflects its seriousness.

Symptoms and Diagnosis: Pollo-Flores *et al* (2015, page 228) discuss the most frequent complications of Hellp syndrome, including: ICD, placental abruption, acute lung edema and acute renal failure, with infarction and rupture hepatic diseases are the most catastrophic consequences. Regarding renal insufficiency, Peres; Katarinhuk (2006) point out in their studies that the incidence of ARF can vary from 5 to 84.5% in the Hellp syndrome, and that it can occur from mild cases of transient renal dysfunction to acute tubular necrosis or cortical necrosis. However, this lesion is usually reversible when

cortical necrosis does not occur. Because of this situation, monitoring of renal function in preeclampsia is important.

It is understood that this syndrome becomes rather nonspecific in its diagnosis, since the pregnant woman may or may not have a hypertensive condition, even though most of the severe arterial hypertension is present. Although not specific, Pollo-Flores *et al* (2015) argue that these symptoms are associated with the laboratory abnormalities that define the syndrome: presence of peripheral blood schizocytes with increased bilirubin due to hemolysis, elevation of liver enzymes and thrombocytopenia, lead to the possible diagnosis of HELLP syndrome. On the schizocytes, Fatima *et al* (2008) reflect that most of the studies on the laboratory tests for HELLP syndrome diagnose only qualitative parameters, characterizing only the presence or absence of these fragments that are part of erythrocytes. Coelho *et al* (2004) reported in their studies the presence and elevation of proteinuria levels, which consequently increased maternal complications, such as the syndrome, being detected on average three to four weeks before changes in fetal development and or worsening of the maternal clinical picture. It is suggested that pregnant women suspected of having pre-eclampsia perform the appropriate laboratory tests for screening for HELLP syndrome by means of basic tests for screening: "complete blood count with platelets, urinalysis, serum creatinine, lactic dehydrogenase (DHL), uric acid, bilirubins and transaminases; the more specific tests are reserved for those women with platelet count below 100,000 / ml "(NERY *et al*, 2014).

Conduct and Treatment in HELLP Syndrome: Like other authors, Nery *et al* (2014) points out that the syndrome has high morbidity and mortality, characterizing it as a rare condition, which carries a risk of death, and in some pregnant women, they develop only one or two of the characteristics of the syndrome. The earlier the diagnosis, the faster the intervention should be initiated in a resolutive way, and "the only definitive treatment for HELLP syndrome is the delivery and removal of chorionic villi", Katz *et al*. (2007) explain. It is understood that the initial goal in the treatment of HELLP syndrome is the stabilization of the pregnant woman in conjunction with the fetal evaluation and, when necessary, the induction of labor (SOUZA *et al*, 2009). Recalling that the immediate delivery is indicated in severe hypertension persistently elevated arterial compression for 24 to 48 hours, the syndrome may be observed before or after delivery, and when it occurs in the puerperium, its onset is mainly from 24 to 48 hours after the birth of the fetus, although it is described that the onset of the manifestations may occur within a few hours or up to 6 days after delivery (GANEM, CASTIGLIA, 2002). According to Porto *et al*. (2010), in the case of this syndrome, vaginal delivery is preferable, BP should be maintained below 155/105 mmHg, and there should be close monitoring of maternal conditions up to 48 hours after gestation. No specific treatment is available, since the exact pathophysiology of the disease remains unknown, even though several experimental modalities have been proposed to treat or reverse the pathophysiology of the syndrome, there is no evidence of efficacy in most of the interventions (KATZ *et al*, 2007). In her studies, Pollo-Flores *et al* (2015) mentions the use of corticosteroids, which should only be used with obstetrical indication to accelerate pulmonary maturity in pregnancies less than 34 weeks old, even though their use is not routine. It also complements that even with treatment for HELLP syndrome, the patient has great chances of attending the same disease in the next pregnancy.

Grochowski et. al (2009) defend the expectant approach, which may be acceptable when the gestational age is less than 34 weeks. In this case, although controversial, corticosteroids may be used, for a maximum period of 48 hours, for fetal lung maturation. Corticosteroids are used to prevent neonatal mortality, since prematurity is the major morbidity factor, and the newborn should be treated with surfactant (GANEM and CASTIGLIA, 2002).

Nursing care: It is therefore incumbent upon nurses to seek the efficiency of care in order to contribute to the quality of care for these patients. Because of their performance, these professionals are of inestimable value in the contribution to reduce the maternal mortality they defend (OLIVEIRA; VASCONCELOS, 2006). It is worth mentioning that one of the major causes of mortality due to HELLP syndrome is hepatic complications such as "subcapsular hematoma and rupture, infarction and fulminant hepatic failure". And imaging tests such as MRI are "an excellent method for liver evaluation" and allow for early detection and investigation (CARVALHO *et al*, 2008). Fonsêca *et al* (2007) defended the interruption of pregnancy regardless of gestational age, when the mother is at risk of high life and a severe condition, in which she should be hospitalized immediately in a unit with high complexity. The success of the follow-up of a pregnancy with HELLP syndrome is in the early recognition of diagnosis and in the installation of appropriate therapy, performed by a team of trained professionals (FONSÊCA *et al*, 2007). For, in the worst maternal and perinatal prognosis, several factors are involved, (OLIVEIRA; VASCONCELOS, 2006) describe them, the time of the onset of the disease: the earlier the more severe; parity and access to prenatal care, because it enables a faster diagnosis of complications. Pregnant hypertensive women deserve special care, require differentiated prenatal follow-up, specific laboratory tests, careful fetal evaluation and greater possibility of hospitalization during pregnancy, in view of the associated maternal and fetal risks (COELHO *et al*, 2004). It is important to emphasize the importance of prenatal care as a decisive factor, since many pathologies identified and treated early in the pregnancy-puerperal period would probably reduce the risks of developing severe forms of the disease, such as the presence of HELLP syndrome (OLIVEIRA; VASCONCELOS, 2006).

Final Considerations

As evidenced, the findings of the present study point to the need to perform research for a better understanding of the HELLP syndrome, since its physiology can not be fully elucidated, and its main symptoms can be confused with other pathologies. It is a serious disease that complicates pre-eclampsia and that there are more intense complications, in the most severe form for maternal and perinatal morbidity and mortality. . Hence the essential role of health medicine with the diagnosis of suspension and association of the symptoms that may appear in pregnancy, as soon as it began the prenatal care, having thus to be referenced to a more complex unit, the tertiary sector, or Be a hospital of great complexity so that it can be helped by a specialized team. When treatment, observed that the most effective means to apply a syndrome is an interruption of gestation as soon as possible. On the existing knowledge, the authors are the studies and studies on the similar and confused small findings of ideas, are seen as diagnoses and the parameters of this syndrome. However, the use of corticosteroid caution for fetal lung maturation, when

the gestational age is stable and its pen is viable. However, in cases where the mother is at high risk of death, the interruption of gestation is justified, and the team should consider each case in its particularities, as well as the conditions of the hospital. With this study it was possible to delineate the assistance performed by the nurse in the prenatal consultations, highlighting the importance of the research propaedeutics for the diagnosis of HELLP Syndrome, always in cases that the pregnant woman is hypertensive and poses the pre-eclampsia, considering that this syndrome, besides being a serious episode at such a remarkable stage in a woman's life, it has an unforeseen onset, with a poor prognosis and can still be repeated in future pregnancies. Therefore, the study collaborates to enrich the knowledge of the public that is interested in this subject, emphasizing the monitoring and permanent vigilance of the variations in the pressure of the pregnant woman, and that they must rethink and adopt more resolutive actions for women's health, be it at the outpatient level and hospital care, ensuring that these pregnant women have as early a prenatal follow-up as possible, since this is considered a positive factor for their quality of life.

REFERENCES

ALMEIDA, Monica Gomes de. *et al*. Hepatic Doppler in preeclampsia and HELLP syndrome. In: FEMINA, November / December, 2015, vol 43, nº 6. Available at: <http://files.bvs.br/upload/S/0100-7254/2015/v43n6/a5323.pdf>. Access in: 03 april. 2017.

CARVALHO, Ana Rita Marinho Ribeiro. *et al*. Hepatic Magnetic Resonance in Stable Puerperas with HELLP Syndrome. In: Rev Assoc Med Bras, 2008; 54 (5): 436-41. Available at: <http://www.scielo.br/pdf/ramb/v54n5/a18v54n5.pdf>. Access in: 03 april. 2017.

CASTRO, Rodrigo F. *et al*. HELLP Syndrome Associated with Cushing's Syndrome: report of two cases. In: Arq Bras Endocrinol Metab, vol 48 nº 3 June 2004. Available in:<http://www.scielo.br/pdf/abem/v48n3/a15v48n3.pdf>. Access in: 03 april. 2017.

COELHO, Tarcísio Mota. *et al*. Proteinuria in Hypertensive Syndromes of Gestation: maternal and perinatal prognosis. In: Revista Assoc Med Bras, 2004; 50 (2): 207-1. Available at: <http://www.scielo.br/pdf/ramb/v50n2/20785.pdf>. Accessed on: 05 Apr. 2017.

FÁTIMA, Rosângela de. *et al*. Meaning of the Presence of Schizocytes in the Peripheral Blood of Pregnant Women with Preeclampsia. In: Rev Bras Ginecol Obstet. 2008; 30 (8): 406-12. Available at: <http://www.scielo.br/pdf/rbgo/v30n8/06.pdf>. Access in: 03 april. 2017.

FONSÊCA, Patricia Costa. *et al*. HELLP syndrome: considerations about diagnosis and conduct. In: FEMINA, September, 2007, vol 35, nº 9. Available in: <http://www.febrasgo.org.br/site/wp-content/uploads/2013/05/Femina359p585-90.pdf>. Accessed on: 05 Apr. 2017.

GANEM, Eliana Marisa; CASTIGLIA, Yara Marcondes Machado. Anesthesia in Pre-eclampsia. In: Rev. Brasileira Anestesiol, 2002; 52: 4: 481-497. Available at: <http://www.scielo.br/pdf/rba/v52n4/v52n4a13.pdf>. Accessed on: Mar 19, 2017.

GROCHOWSKI, Rubens Andrade. *et al*. HELLP syndrome: case report. In: Med Med Journal, 2009; 19 (4 Suppl 3): S86-S8. Available in: <file: /// C: /Users/AEE-MARANHENSE/Downloads/v19n4s3a20.pdf>. Access in: 03 april. 2017.

KATZ, Leila. *et al*. Clinical, Laboratory and Complications Profile of Patients with HELLP Syndrome Admitted to an Obstetric Intensive Care Unit. In: Bras Ginecol Obstet. 2008; 30 (2): 80-6. Available at: <http://www.scielo.br/pdf/rbgo/v30n2/06.pdf>. Accessed on: 28 mar. 2017.

MARCONI, Marina de Andrade; LAKATOS, Eva Maria. Research techniques: planning and execution of research, sampling and research techniques, elaboration, analysis and interpretation of data. 7th ed. São Paulo: Atlas, 2008.

MIRANDA, Francine Krassota. *et al*. Nursing Performance in HELLP Syndrome: a review of the literature. In: Management & Health Journal, v. 15, n. 1, p. 39 - 45, 2016. Available at: <http://www.herrero.com.br/revista/edicao15/Artigo%2015_01_06.pdf>. Access in: 03 april. 2017.

NERY, Inez Sampaio. *et al*. Epidemiological and Obstetric Profile of Pregnant Women with HELLP Syndrome. In: Cogitare Enferm. 2014 Jan / Mar; 19 (1): 147-52. Available at: <http://www.revenf.bvs.br/pdf/ce/v19n1/22.pdf>. Access in: 03 april. 2017.

NUNES, Filomena. *et al*. Corticosteroid therapy in HELLP syndrome (Haemolysis, Elevated Hepatic Enzymes and Thrombocytopenia). In: Acta Med Port, 2005; 18: 177-182. Available at: <www.actamedicaportuguesa.com/revista/index.php/amp/article/download/1026/69>. Accessed on: 28 mar. 2017.

OLIVEIRA, Maria Ivoneide Veríssimo De; VASCONCELOS, Simone Gonçalves. Puerperas with HELLP syndrome: analysis based on obstetric aspects. In: Journal. RENE. Fortaleza, v. 7, n. 2, p. 74-80, May / May 2006. Available at: <http://www.repositorio.ufc.br/bitstream/riufc/13552/1/2006_art_mivoliveira.pdf>. Accessed on: 07 Apr. 2017.

OLIVEIRA, Roberto Santos De *et al*. HELLP syndrome: a review study for nursing care. In: Quarterly electronic journal of nursing. October 2012. ISSN 1695-6141, nº28. Available at: <http://scielo.isciii.es/pdf/eg/v11n28/en_revision2.pdf>. Accessed on: 05 Apr. 2017.

PERES, Luis Alberto Batista; KATARINHUK, Blane Soraya Lontra Assed Caires de Souza. Epidemiologic Evaluation of Acute Renal Insufficiency in HELLP Syndrome in a General Hospital in Western Paraná. In: J Bras Nefrol, Volume XXVIII - nº 3 - September 2006. Available in: <file: /// C: /Users/AEE-MARANHENSE/Downloads/28-03-04.pdf>. Access in: 03 april. 2017.

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