COMPLICATIONS OF PRE-ECLAMPSIA: POTENTIALLY SERIOUS OBSTETRIC EMERGENCY

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Abstract: Introduction: Pre-Eclampsia (PE) is characterized by variable degrees of poor placental perfusion, with release of soluble factors into the circulation. Methodology: This is a literature review carried out through the PUBMED, LILACS and SciELO databases, using the descriptors in Portuguese: “Pre-eclampsia”, “Pregnancy” and “Obstetrics”. 10 articles were selected, corresponding to the theme. Theoretical Background: PE is a multisystem disorder of pregnancy characterized by new onset hypertension (i.e., systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) ≥ 90 mmHg) and proteinuria (> 300 mg/24h). Conclusion: In all contexts, clinical history must not be underestimated as it provides important data and remains the most effective way of identifying pregnant women at increased risk of developing pre-eclampsia. Keywords: Pregnancy Toxemia. Emergency

INTRODUCTION

Pre-eclampsia is a life-threatening determinant during pregnancy, which only occurs in humans, and is among the main causes of maternal and neonatal morbidity and mortality. (PE) is characterized by variable degrees of poor placental perfusion, with release of soluble factors into the circulation. These factors cause maternal vascular endothelial injury, which leads to hypertension and multiple organ damage. It is a hypertensive disorder in pregnancy related to 2% to 8% of pregnancy-related complications worldwide. It results in 9% to 26% of maternal deaths in low-income countries and 16% in high-income countries. Therefore, a study of the possible complications inherent to pre-eclampsia is crucial for adequate management of the clinical conditions presented by patients.

METHODOLOGY

This is a literature review carried out through the PUBMED, LILACS and SciELO databases, using the descriptors in Portuguese: “Pre-eclampsia”, “Pregnancy” and “Obstetrics”. 30 articles were selected for reading, of which 10 articles were included for writing this literature review.

THEORETICAL FOUNDATION

Pregnancy is a physiological state associated with increased metabolism and oxygen demand. And it can be marked by complications, such as Hypertensive Pregnancy Syndromes (HGS), whose incidence ranges from 7.3 to 15.3%.

Preeclampsia (PE) is a multisystem disorder of pregnancy characterized by new onset hypertension (i.e., systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) ≥ 90 mmHg) and proteinuria (> 300 mg/24 h). (PE) is more common in industrialized countries and more common in African-American women. African American women are more likely to have comorbidities associated with preeclampsia and more likely to experience an adverse outcome during peripartum care.

(PE) is defined as the presence of new-onset hypertension and proteinuria or other end-organ damage that occurs after 20 weeks of gestation, while eclampsia is defined as the development of grand mal seizures in a woman with pre-eclampsia. Pathological studies show abnormal development of an ischemic placenta with high-resistance vasculature, which cannot provide an adequate blood supply to the fetoplacental unit. Endothelial dysfunction plays a central role in the pathogenesis of maternal syndrome. Furthermore, the general risk factors for pre-eclampsia are family history, as women of mothers who had pre-eclampsia during pregnancy have a higher risk of developing it during pregnancy,
prolonged sexual cohabitation, smoking, age, pregnancies arising from in vitro fertilization, pre-existing hypertension, diabetes, chronic kidney disease, obesity, multiple pregnancies, trisomy 13.

Limited data suggest that excess circulating soluble tyrosine kinase 1 (sFlt-1), which binds placental growth factor (PIGF) and vascular endothelial growth factor (VEGF), may have a pathogenic role. Placental growth factor is a member of the vascular endothelial growth factor (VEGF) family and is predominantly expressed in the placenta, although it is also expressed at low levels in many other tissues, including heart, lung, thyroid, liver, skeletal muscle and bone. The human PIGF gene is located on chromosome 14q14 and encodes 4 PIGF isoforms. Serum and urinary PIGF have been found to be decreased in women both at the time of diagnosis with preeclampsia and well before the onset of the syndrome. PIGF deficiency is likely due to a combination of decreased PIGF expression and reduced free PIGF due to binding to sFLT-1, which is elevated in affected women.

Women who survive preeclampsia have decreased life expectancy, with increased risks of stroke, cardiovascular disease and diabetes, while babies from a preeclamptic pregnancy have increased risks of premature birth, perinatal death and developmental disability. Neurological and cardiovascular and metabolic diseases later in life. Prophylactic low-dose aspirin may reduce the risk of premature preeclampsia, but once preeclampsia is diagnosed, there are no curative treatments except for delivery, and no medication has been shown to influence disease progression. Finally, in all contexts, clinical history must not be underestimated as it provides important data and remains the most effective way to identify pregnant women at increased risk of developing pre-eclampsia. Regardless of risk quantification, the identification of these conditions must guide the expansion of prenatal surveillance, avoiding causing generalized anxiety in patients.

CONCLUSION

Women who survive pre-eclampsia have a reduced life expectancy, with increased risks of stroke, cardiovascular disease and diabetes, while babies from a pre-eclamptic pregnancy have increased risks of premature birth, perinatal death and developmental disability. Neurological and cardiovascular and metabolic diseases later in life. Prophylactic low-dose aspirin may reduce the risk of premature preeclampsia, but once preeclampsia is diagnosed, there are no curative treatments except for delivery, and no medication has been shown to influence disease progression. Finally, in all contexts, clinical history must not be underestimated as it provides important data and remains the most effective way to identify pregnant women at increased risk of developing pre-eclampsia. Regardless of risk quantification, the identification of these conditions must guide the expansion of prenatal surveillance, avoiding causing generalized anxiety in patients.
REFERENCES


