Depression during pregnancy as a risk factor for preeclampsia, a prospective study

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Abstract:

Objective The purpose of this study was to examine if depression occurring early and late during pregnancy is associated with preeclampsia in a sample of healthy pregnant females. ***Method*** In a prospective observational study over a period of one year, one hundred nulliparous women with singleton pregnancies presenting to the Obstetrics Clinic of the Obstetrics and Gynaecology Department-Ain Shams University Public Hospital were recruited and followed up longitudinally from early pregnancy to the end of gestation. They underwent comprehensive neuropsychiatric evaluation using the psychiatric and clinical obstetric data sheets with the outcome of pregnancy known in all cases and depression was rated using the Beck Depression Inventory (BDI). The level of depression was measured at baseline (12 to 17 weeks' gestation) and in late pregnancy (30 to 33 weeks' gestation). Preeclampsia was defined as elevated blood pressure (BP) (more than 140/100 mmHg) and proteinuria (0.3 g during 24 hours or more) after 20 weeks' gestation. Age, marital status, educational level, profession and social status were analyzed as potentially confounding factors in a logistic regression analysis. ***Results*** Depression was detected in 30 women (30% of subjects) in early pregnancy and in 34 women (34% of subjects) in late pregnancy. Of them, 4 women developed preeclampsia. The baseline depression scores were not associated with preeclampsia. The third trimester BDI scores, however, were associated with preeclampsia. Third trimester depression combined with early pregnancy depression was associated with further increased risk for preeclampsia than third trimester depression only. Preeclampsia was significantly associated with older age in the study group. ***Conclusion*** Depression in pregnancy is strongly linked with risk for subsequent preeclampsia. It is possible that the identification and treatment of depression during pregnancy may be a means of preventing and managing preeclampsia.

Introduction:

Preeclampsia is a pregnancy–specific multisystem disorder of unknown etiology. This disorder affects approximately 5–7 % of pregnancies and is a significant cause of maternal and fetal morbidity and mortality. Preeclampsia is defined by the new onset of elevated blood pressure and proteinuria after 20 weeks of gestation ***(Wagner, 2004).*** Preeclampsia and other hypertensive disorders of pregnancy are responsible for about 76,000 deaths each year in the United States ***(Preeclampsia Foundation, 2006).*** There is no single reliable, cost-effective screening test for preeclampsia, and there are no well-established measures for primary prevention. Management before the onset of labor includes close monitoring of maternal and fetal status. Management during delivery includes seizure prophylaxis with magnesium sulfate and, if necessary, medical management of hypertension. Delivery remains the ultimate treatment. Access to prenatal care, early detection of the disorder, careful monitoring and appropriate management are crucial elements in the prevention of preeclampsia-related deaths ***(American Academy of Family Physicians, 2004).*** Traditionally, pregnancy has been thought of as a period of well being and happiness. The pregnancy state itself has been thought to protect women from depression ***(Stocky and Lynch, 2000).*** Actually, pregnancy may be a possible trigger for the development of depression in some women. This may be due to changes in hormone levels during pregnancy and the stress that comes with this major life event ***(Organization of Teratology Information Specialists, 2006).*** However, life time depression risk estimates in community–derived samples have varied between 10% and 25% of pregnant women ***(Wisner et al., 2000).*** Two studies that screened obstetric patients at random for depressive symptoms found that 20% of patients