

Pregnancy is a very serious and Transformative period in a Woman's life, in which a Woman's body goes through many Changes to support the growing life inside her ,these changes include biological, physiological and somatic changes. Not all changes during pregnancy are normal, so observing them is important and getting good care before, during, and after your pregnancy must be taken into consideration. Taking it seriously will reduce many problems and complications in the future, which may lead to health problems for the mother, the child, or both, which unfortunately may lead to death. THE World Health Organization (WHO) shows that 500,000 women in developing countries die annually due to pregnancy complications, such as abortion, obstructed labor , placental abruption and hypertensive disorders. hypertensive disorders include Chronic hypertension which is characterized by high blood pressure before pregnancy or during the first 20 weeks of pregnancy, Chronic hypertension with superimposed preeclampsia occurs when chronic hypertension leads to harm to high blood pressure during pregnancy. accompanied with protein in the urine or other complications. Gestational hypertension, women with gestational hypertension have high blood pressure that develops after 20 weeks of pregnancy. There's no excess protein in the urine and Preeclampsia occurs when hypertension develops after 20 weeks of pregnancy with protein in urine. Preeclampsia is an acute condition which is specific in human pregnant females , it influences 2% to 8% of pregnancies and causes significant maternal and perinatal morbidity and mortality. 9%–26% pregnant women with preeclampsia die annually in developing countries and 16% deaths in modern countries. Preeclampsia is characterized by hypertension and proteinuria, and it's a multisystemic syndrome which affects different organs such as kidney, liver, brain and lungs. Preeclampsia is a complex and multifactorial disorder. The pathophysiology of preeclampsia involves a combination of genetic, immunological, vascular, and environmental factors. The main defect is represented by the impaired placenta, which is the first preclinical stage. This impaired placenta releases certain substances that lead to endothelial dysfunction. Preeclampsia is a serious hypertensive disorder that affects 2% to 8% of pregnancies globally . It poses risks to both maternal and fetal health, leading to considerable morbidity and mortality . The hallmark features of preeclampsia include hypertension and proteinuria. However, the condition can progress to affect multiple organ systems in the body . The onset of preeclampsia is associated with abnormal development of the placenta, leading to the release of certain factors in the maternal circulation, leading to endothelial dysfunction, vasoconstriction, and immune system dysregulation. Diagnosis of preeclampsia involves clinical examination, screening tests, in addition to other specific biomarkers detection. Delivery of the baby and placenta is the only definitive treatment for preeclampsia, as it resolves the underlying placental abnormalities. In high risk populations, low-dose aspirin may be recommended as a prophylactic measure. However, treatments for preeclampsia are limited, and management primarily focuses on controlling blood pressure and monitoring for complications.

**ABSTRACT 4** which is the second clinical stage. In endothelial dysfunction there is an impaired function of the lining blood vessels cells throughout the body. This dysfunction leads to vasoconstriction (narrowing of blood vessels), inflammation, and increased vascular permeability, resulting in hypertension (high blood pressure) and damage to various organ systems, most commonly the kidneys, liver, and brain. The pathophysiology of preeclampsia can be associated with various complications that

may arise before, during, or after delivery , leading to vascular abnormalities and multi organs damage. Many risk factors contribute to an individual's chance of getting preeclampsia. It's important for pregnant individuals to discuss any potential risk factors with their healthcare provider, who can provide personalized guidance and monitoring throughout pregnancy to help prevent or manage preeclampsia and its complications .The presence of risk factors like nulliparity , obesity, chronic hypertension, pre-existing diabetes, and previous preeclampsia highlights the importance of regular clinical examination and screening tests throughout pregnancy. Early detection allows for timely interventions, optimizing maternal and fetal health through tailored management strategies. Early detection and intervention are crucial for reducing the risk and optimizing outcomes for both mother and baby. Preventing and Managing preeclampsia are crucial aspects of prenatal care aimed at reducing the risk of complications for both the mother and the baby. Implementing effective management strategies involve a combination of clinical interventions, lifestyle modifications, and possibly medical treatments. By addressing risk factors, monitoring maternal health, and providing timely interventions, healthcare providers can improve outcomes for pregnant individuals at risk of preeclampsia.