Rep Thyroid Res, Volume 5:3, 2021

Reports in Thyroid Research

ISSN: 2684-4273

Short Communication

Interrelationship Between Pregnancy and Thyroid Disease

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Abstract

Background & Aim: A normal pregnancy comprises a series of physiological changes, which challenge the diagnosis of maternal diseases and affect the incidence of varied diseases in and after a pregnancy. Changes within the coagulation system during a pregnancy include a rise within the levels of coagulation factors and fibrinolytic inhibitors, making pregnancy a hypercoagulable and hypofibrinolytic state. Thus, the danger of venous thromboembolism (VTE), i.e. deep phlebothrombosis (DVT) and therefore the complicating embolism , increases gradually during pregnancy and peaks within the early postpartum period. Furthermore, the anatomic changes during a pregnancy contribute to the danger as evidenced by the increased incidence of proximal left-sided VTE in pregnant women. Also, the function of the thyroid is considerably altered in pregnancy to make sure supply of hormone to the fetus. A predominant effect on thyroid function is mediated via the pregnancy hormone human chorionic gonadotropin (hCG), which stimulates the thyroid to an increased production of hormone . Moreover, the changes within the system in and after a pregnancy may influence the onset of autoimmune thyroid disease. Consequently, pregnancy entails numerous physiological changes capable of altering the coagulation system and therefore the function of the thyroid . Adding to the present , increasing evidence has indicated an association between abnormal thyroid function and abnormalities within the coagulation system in non-pregnant individuals.

We speculated on the possible interrelationship between pregnancy, VTE, and thyroid disease and performed a hypothesis-generating review on this subject. More specifically, we aimed to supply an summary of the physiological changes related to a traditional pregnancy within the coagulation system and in thyroid function and to explain the occurrence of VTE and thyroid disease in and after pregnancy. Furthermore, we aimed to explain the association between thyroid disease and VTE in non-pregnant individuals and to debate possible mechanisms of their interaction in pregnancy.

VTE risk is increased thanks to physiologic and anatomic changes that occur in pregnancy. These changes include hypercoagulability, progesterone-induced venous stasis, decreased venous outflow, compression of the inferior vein and pelvic veins by the expanding uterus, and decreased mobility.

Pregnancy and therefore the postpartum period substantially increase the danger for thrombotic events. Although absolutely the risk for thrombosis is low, these events comprise a big portion of maternal morbidity and mortality. The overwhelming majority of such events are venous, although the danger for ischaemic stroke also appears to be increased in pregnancy. This review will explore the overlapping and unique risk factors for venous and arterial thrombosis in pregnancy. Diagnosis and prevention are going to be discussed, and treatment are going to be briefly touched on. The advantage of employing a multidisciplinary model in caring for pregnant women who have had a thrombotic event or who are at increased risk for thrombosis may be a major focus of the review. Using the experience of our own Hematology and Obstetrics/Maternal Fetal Medicine shared care model, we discuss specific samples of when the utilization of such an approach is especially valuable.

There has been a clear increase within the United States' maternal mortality ratio during the last 20 years. Although it's controversial whether improved ascertainment of maternal deaths explains this pattern, other developed nations haven't seen this increase.