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Obstetric, Demographic, and Dietary Characteristics, Anthropometric Indices, and Pregnancy Outcomes among Pregnant Women with and Without Hypothyroidism in Abadan

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ABSTRACT

Introduction: Hypothyroidism is one of the most common thyroid dysfunctions during pregnancy. The purpose of this study was to compare the obstetric, demographic, and dietary characteristics, anthropometric indices, and pregnancy outcomes between pregnant women with and without hypothyroidism referring to the health centers of Abadan.

Methods and Materials: This analytical cross-sectional study was conducted on 160 pregnant women divided into two groups (n = 80 hypothyroidism and n = 80 non-hypothyroidism) referring to the healthcare centers of Abadan in 2021. Demographic characteristics, including age, education level, city of residence, occupation, spouse's occupation, and smoking history, along with anthropometric measurements such as pre-pregnancy weight, weight during pregnancy, weight gain during pregnancy, pre-pregnancy and pregnancy BMI are essential for understanding maternal health.

Additionally, obstetrics characteristics, including a history of delivering babies with hypothyroidism, cretinism, preterm births, the number of births, the number of pregnancies, postpartum hemorrhages, respiratory failure in newborns, hospitalization of the infant, history of abortion, premature birth, diabetes mellitus, and the use of iron supplements before pregnancy are also significant. Furthermore, the medical history should encompass hypothyroidism, family history of hypothyroidism, hypothyroidism during pregnancy, and both systolic and diastolic blood pressure readings. The baby's birth weight and the number of days with hospitalization were also collected. Dietary intake was evaluated using a food frequency questionnaire. Data were analyzed using IBM SPSS statistics software version 26.

Results: The chi-square test results showed a significant difference between the two groups regarding family history of hypothyroidism. Therefore, 20 women with hypothyroidism and 11 non-hypothyroidism women indicated a history of hypothyroidism in the family (p = 0.054). In addition, 14 hypothyroidism and only 4 non-hypothyroidism women had a family history of pregnancy hypothyroidism (p = 0.011). Also, the results of Mann-Whitey U test demonstrated that the mean rank of systolic blood pressure in women with hypothyroidism was significantly higher than that of non-hypothyroidism cases (p = 0.054). However, the two groups found no significant differences in other parameters.

Conclusion and Discussion: The findings of this study exhibit that a family history of pregnancy hypothyroidism and a history of hypothyroidism in the family may play a determinant role in the risk of hypothyroidism among pregnant women. Moreover, hypothyroidism may increase the risk of pregnancy-induced hypertension.

Keywords: Hypertension, Hypothyroidism, Pregnancy