JOURNAL OF MULTIDISCIPLINARY SCIENCES AND INNOVATIONS
VOLUME 04, ISSUE 09
MOPNTHLY JOURNALS
ISSN NUMBER: 2751-4390
IMPACT FACTOR: 9,08

OBSTETRIC AND GYNECOLOGICAL CHARACTERISTICS OF DIFFUSE GOITER IN PREGNANT WOMEN

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Abstract: This study aims to identify the obstetric and gynecological characteristics of diffuse goiter in pregnant women. Medical data from 108 pregnant women were analyzed, with diffuse goiter detected in 86.1% of them. The research results showed that pregnant women with diffuse goiter experience complications such as anemia (68.5%), uterine hypertonus (21.3%), and polyhydramnios (9.3%) with high frequency. Reproductive history revealed problems associated with medical abortions (12.0%) and spontaneous abortions (9.3%).
Keywords: diffuse goiter, pregnancy, thyroid gland, anemia, uterine hypertonus, obstetric complications, reproductive health

Annotatsiya. Ushbu tadqiqot homilador ayollarda diffuz zobning akusherlik va ginekologik xususiyatlarini aniqlashga qaratilgan. 108 homilador ayolning tibbiy ma'lumotlari tahlil qilingan bo'lib, ularning 86,1% da diffuz zob aniqlangan. Tadqiqot natijalari shuni ko'rsatdiki, diffuz zob bilan og'rigan homilador ayollarda anemiya (68,5%), bachadon gipertonusi (21,3%) va ko'p suvlilik (9,3%) kabi asoratlar yuqori chastotada uchraydi. Reproduktiv anamnezda tibbiy abortlar (12,0%) va o'z-o'zidan abortlar (9,3%) bilan bog'liq muammolar qayd etilgan.
Kalit so'zlar: diffuz zob, homiladorlik, qalqonsimon bez, anemiya, bachadon gipertonusi, akusherlik asoratlari, reproduktiv salomatlik

Аннотация. Данное исследование направлено на выявление акушерских и гинекологических особенностей диффузного зоба у беременных женщин. Проанализированы медицинские данные 108 беременных женщин, у 86,1% из которых выявлен диффузный зоб. Результаты исследования показали, что у беременных женщин с диффузным зобом осложнения, такие как анемия (68,5%), гипертонус матки (21,3%) и многоводие (9,3%), встречаются с высокой частотой. В репродуктивном анамнезе отмечены проблемы, связанные с медицинскими абортами (12,0%) и самопроизвольными абортами (9,3%).
Ключевые слова: диффузный зоб, беременность, щитовидная железа, анемия, гипертонус матки, акушерские осложнения, репродуктивное здоровье

INTRODUCTION

Thyroid dysfunction, particularly diffuse goiter, is one of the most common endocrine disorders in women of reproductive age and is associated with increased risk of various obstetric and perinatal complications during pregnancy [1]. According to the World Health Organization, iodine deficiency and thyroid disorders remain among the global health challenges [2]. During pregnancy, the thyroid hormonal system undergoes significant changes, which may lead to exacerbation of existing pathologies or development of new disorders [3]. The clinical significance of diffuse goiter during pregnancy is determined by its impact on maternal and fetal health, including its association with dangerous conditions such as miscarriage, preterm birth, preeclampsia, fetoplacental insufficiency, and intrauterine growth restriction [4]. In Uzbekistan, problems related to iodine deficiency remain relevant, attributed to regional characteristics and nutritional factors [5]. In this regard, studying the obstetric and gynecological characteristics of diffuse goiter in pregnant women is of great importance for developing prevention and management strategies for this pathology.

METHODOLOGY AND LITERATURE REVIEW

The study involved retrospective analysis of medical records of 108 pregnant women, all of whom were under endocrinological observation. The mean age of patients was 27.6 years, with age ranges from 19 to 41 years. Data collection methodology included extracting information from medical documentation and applying descriptive statistical analysis methods. Literature review was conducted using international and national scientific sources. Numerous studies on the effect of thyroid hormones on reproductive function demonstrate that changes in thyroxine and thyrotropin levels significantly affect pregnancy outcomes [6].

Scientific literature on the etiology and pathogenesis of diffuse goiter confirms that iodine deficiency leads to increased thyroid gland volume and impaired hormone synthesis [7]. Several international studies indicate that thyroid hormone requirements increase by 30-50% during pregnancy, which may lead to development or exacerbation of diffuse goiter in conditions of existing iodine deficiency [8]. Experience from Russia and neighboring countries shows that pregnant women with diffuse goiter have high rates of anemia, hypertensive disorders, and fetoplacental insufficiency [9]. In Uzbek medical practice, despite iodized salt programs, thyroid disorders remain prevalent among women of reproductive age, indicating the need to strengthen prevention and early detection measures [10]. Literature review clearly demonstrates that assessing the impact of diffuse goiter on pregnancy outcomes requires a multidisciplinary approach and collaborative work among endocrinologists, obstetrician-gynecologists, and perinatologists.

RESULTS AND DISCUSSION

Study results showed that among 108 pregnant women, 93 cases (86.1%) had diffuse goiter of varying degrees, of which 68.5% had grade 1 diffuse goiter, 11.1% had grade 1 diffuse goiter with iodine deficiency disorder, and 3.7% were diagnosed with grade 2 diffuse goiter. Analysis of patients' demographic characteristics revealed that 40.7% of patients were in the 18-25 age range, 48.1% in the 26-35 age range, and 11.1% were over 36 years old. Reproductive history indicators showed that the average number of pregnancies was 2.68, while the number of births was 2.34. Distribution by gravidity showed that 23.1% of patients were primigravidas, while 76.9% belonged to the multigravida group. Analysis of complications during current pregnancy provided very important information.

Complications were recorded in 88.0% of pregnant women, with the most common complication being anemia (68.5%). This indicator is higher than data in international literature, confirming the negative impact of diffuse goiter on iron metabolism and hematopoiesis. Uterine hypertonus was detected in 21.3% of cases, which can be explained by the effect of thyroid hormones on myometrial activity. Polyhydramnios was recorded in 9.3% of patients, which may be associated with fetoplacental complex dysfunction and disruption of fetal metabolic processes. In reproductive history, medical abortions were recorded in 12.0% and spontaneous abortions in 9.3% of cases, indicating the negative impact of diffuse goiter on reproductive function. Complications during previous pregnancies occurred in 76.9% of cases, confirming the increased risk of recurrent obstetric complications in women with diffuse goiter. Table 1 presents the demographic and reproductive characteristics of patients, while Table 2 reflects the frequency of complications during current pregnancy.

Table 1. Demographic and Reproductive Characteristics of Patients

Indicators	n	%
Age groups		
18-25 years	44	40.7
26-35 years	52	48.1

36 and above	12	11.1
Gravidity		
Primigravida	25	23.1
Multigravida	83	76.9
Reproductive history		
Medical abortions	13	12.0
Spontaneous abortions	10	9.3
Previous pregnancy complications	83	76.9

When comparing the obtained results with literature data, the high frequency of anemia in pregnant women with diffuse goiter is consistent with findings from several international studies. The effect of thyroid hormones on iron metabolism and impaired erythropoiesis play an important role in the pathogenesis of anemia.

Table 2. Frequency of Complications During Current Pregnancy

Complications	n	%
Anemia	74	68.5
Uterine hypertonus	23	21.3
Polyhydramnios	10	9.3
Total with complications	95	88.0

The relatively high occurrence of uterine hypertonus may be associated with thyroid hormones increasing the excitability of uterine muscles. This condition increases the risk of preterm birth and miscarriage; therefore, such patients require special monitoring. The high proportion of multigravidas (76.9%) indicates that diffuse goiter remains a long-term problem in women of reproductive age and persists or recurs during subsequent pregnancies. This demonstrates the need to consider thyroid pathology in contraceptive services and family planning programs. Study limitations are related to the retrospective design and relatively small sample size, with prospective cohort studies recommended for the future.

CONCLUSION

Study results demonstrate that diffuse goiter occurs with high frequency in pregnant women and is associated with several obstetric and gynecological complications. High rates of complications such as anemia, uterine hypertonus, and polyhydramnios justify the need for specialized medical care for pregnant women with diffuse goiter. The high frequency of abortions and previous pregnancy complications in reproductive history confirms the negative long-term impact of thyroid pathology on reproductive health. In clinical practice, regular assessment of thyroid function at the pregnancy planning stage and during pregnancy, implementation of iodine prophylaxis, and prescription of replacement therapy when necessary are of great importance. A multidisciplinary approach, namely collaboration among endocrinologists, obstetrician-gynecologists, and other specialists, is essential for preserving maternal and child health. Future recommendations include conducting prospective studies, comparative analysis of obstetric outcomes at different degrees of diffuse goiter, and evaluation of preventive measures' effectiveness.

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