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Fetomaternal Outcome of Pregnancy in Women with Thyroid Disease at Tertiary Care Hospital

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ABSTRACT

Background: Thyroid dysfunction is among the most common endocrine disorders in pregnancy and is associated with adverse maternal and neonatal outcomes. **Objective:** To determine fetomaternal outcomes of pregnancy in women with thyroid disease at a tertiary care hospital. **Methodology:** At the Bolan Medical College Hospital in Quetta, 250 pregnant patients with thyroid conditions aged 18 to 40 participated in a descriptive cross-sectional study. A standardized proforma was used to gather data on demographic, obstetric, and neonatal outcomes, and SPSS 26 was used for analysis. Maternal hypertension, pre-eclampsia, postpartum hemorrhage, cesarean delivery, oligohydramnios, low birth weight, and neonatal hyperbilirubinemia were among the outcomes evaluated. Thyroid illness type, parity, and maternal age were used for stratification. **Results:** Of the patients, 54.8% had hypothyroidism and 45.2% had hyperthyroidism. Prenatal hypertension (46%), pre-eclampsia (50%), postpartum hemorrhage (52.4%), LSCS (48.4%), oligohydramnios (46%), low birth weight (47.6%), and neonatal hyperbilirubinemia (42.4%) were among the high rates of unfavorable outcomes that were noted. Although there were indications toward a higher risk of low birth weight in older moms, stratified analysis revealed no significant correlation between age, parity, or thyroid type with major outcomes. **Conclusion:** Thyroid disorders during pregnancy substantially increase maternal and neonatal morbidity. Early screening, timely treatment, and close monitoring are crucial to improve outcomes.

INTRODUCTION

The second most prevalent condition is thyroid dysfunction, which includes hyperthyroidism, subclinical hypothyroidism, hyperthyroidism, and subclinical hyperthyroidism. [1]

Endocrine disorders can become apparent during pregnancy. The sole Due to the profound effect that thyroid disorders can have on a pregnancy, obstetrics and endocrinology devote a great deal of resources to studying them. The anterior pituitary gland secretes thyroid stimulating hormone (TSH) every two hours. This causes the thyroid gland to secrete the hormones thyroxin (T4) and triiodothyronine (T3) more often. The binding of T3 and T4 is accomplished by three primary proteins: albumin, transthyretin, and thyroid-binding globulin. The majority of thyroid hormones (about 75 percent) are bound hormones. The biological effects of thyroid hormones are exclusive to their unbound form. [3].

The production of thyroid hormones requires iodide. Deiodinase deiodinates T4 to produce T3, which is three times stronger than T4. This process accounts for the vast majority of circulating T3. An appropriate supply of fetal thyroid hormone (T4) from the mother is required throughout the first trimester. In the first twelve weeks of gestation, only trace amounts of T4, TSH, and T3 are likely to cross the placenta, lending credence to this theory. The fetus's thyroid gland begins producing its own T3 and T4 at about 10 weeks into the pregnancy, thus it may be able to thrive only on transplacental iodine rather than the thyroid hormone that the mother takes. [4].

Thyroid diseases have a significant impact on the outcomes of pregnancy as well as the cognitive development of the fetus. [5]. Since the thyroid is so important to the physiology of pregnancy, it is among the most common endocrine abnormalities encountered in pregnant women. When thyroid hormone binding globulin (TBG) levels rise, thyrotropic influence of human chorionic gonadotropin (HCG) levels rise, and the kidneys clear more iodine, all of which are linked to changes in throat function. [6].

The development of the central nervous system, organogenesis, and overall growth are all reliant on the hormones produced by the mother, as the fetus does not begin to produce its own thyroid hormone until the very last stages of the first trimester [7, 8] Ten percent of pregnant women have subclinical impairment, even

though only two to three percent have obvious thyroid insufficiency [9].

Approximately 3% to 5% of pregnant women experience subclinical hypothyroidism, whereas approximately 0.3 to 0.5 percent deal with overt hypothyroidism. 10 times 10. In 2011, the American thyroid organization released guidelines for the proper diagnosis and management of thyroid disease in pregnant women. The following levels of TSH and free thyroxine (FT4) are considered normal throughout pregnancy: 2.5 mIU/L in the first trimester, 0.2-3 mIU/L in the second trimester, and 12-30 pmol/l, respectively, according to these guidelines [11].

The mother's and the unborn child's health depend on the mother's ability to maintain an euthyroid state throughout pregnancy. Hyperthyroidism increases the risk of hypertension, heart failure, and thyroid issues in mothers. The existing evidence indicates that it increases the chances of stillbirths, limited fetal development, and premature labor. Creatinine insufficiency and thyroid hormone failure can lead to the development of cretinism in a developing fetus, which is the leading preventable cause of learning deficits globally. Subclinical hypothyroidism has no effect on pregnancy, according to various research published in the scientific literature. When diseases are well controlled, normal pregnancy outcomes are achievable. a dozen and thirteen Consistent with previous findings, thyroid dysfunction during pregnancy can negatively impact the developing brain of the unborn child. difficulties that may develop throughout the pregnancy, including but not limited to: low birth weight, early birth, oligohydramnios, postpartum hemorrhage, and caesarean section, among others. the first two sections Anemia, prenatal hypertension, gestational diabetes mellitus, placenta previa, placental abruption, premature membrane rupture, premature delivery, LSCS delivery, postpartum hemorrhage, and numerous other adverse outcomes have been demonstrated in numerous studies as a result of hypothyroidism during pregnancy.

Several common unfavorable perinatal outcomes include preterm birth, fetal distress, stillbirth, deformity, low birth weight (LBW), newborn thyrotoxicosis, abnormalities in neurocognitive development, intrauterine growth restriction (IUGR), and congenital hypothyroidism. from two different places. Research conducted by Kiran et al. found that women with thyroid issues had an increased risk of pregnancy hypertension (10.1%), pre-eclampsia (3.9%), postpartum hemorrhage (45.9%), and LSCS (34.94%). [18] Hypertension (14.7 percent), oligohydramnios (16.7%), postpartum hemorrhage (6.3%), low I (22.9 percent), LSCS (21.9 percent), and infant hyperbilirubinemia (9.4%), according to another study of women with abnormal thyroid function. During the 1919, Despite the negative associations between maternal thyroid disorders and outcomes, many doubts about the full effect on fetomaternal health persist.

To fill that information vacuum, this study examines affected pregnancies from three angles: neonatal health, birth outcomes, and gestational problems. Better individualized prenatal care may arise from therapies guided by results, such as the timely injection of thyroid hormone, improved monitoring, and neonatal thyroid screening.

LITERATURE REVIEW

Due to its potential to affect the health of both the mother and the fetus, thyroid dysfunction during pregnancy is still considered a great cause of concern in the obstetric and endocrinology practice. Overt and subclinical thyroid disease in pregnancy are prevalent worldwide, and rates of overt dysfunction are approximately 2-3% and rates of subclinical dysfunction are as high as 10%. [20]

Physiological changes that happen during pregnancy (increased renal iodine clearance, increased thyroid hormone binding globulin, thyrotropic effect of human chorionic gonadotropin (HCG) make it difficult to interpret thyroid function tests. [21]

Thyroid dysfunction during pregnancy is often related to autoimmune thyroid disease (AITD) that includes graves diseases and Hashimoto's thyroiditis. [22]

Thyroid autoantibodies have been linked in euthyroid women with poor obstetric outcome such as miscarriage, premature birth and small for gestational age babies. This may be because of the immune system, or low-level thyroid hormone deficiency. [23]

Based on some research, a woman that tests positive for thyroid peroxidase antibodies (TPOAb) will be more likely to have unfavorable pregnancy outcomes, as well as gestational hypothyroidism. [24]. Increased risks of miscarriage, maternal hypertension, preeclampsia, placental abruption, gestational diabetes mellitus, premature birth, and postpartum hemorrhage have been demonstrated to be directly correlated to untreated overt hypothyroidism (OH). [25]

Although there are some meta-analyses indicating moderate increases in risk of pre-eclampsia and in pregnant hypertension associations with maternal complications are less clear in SCH. [26]

Despite being rarer (affecting approximately 0.1% to 0.4% of pregnancies), untreated hyperthyroidism poses a greater risk for pre-eclampsia, thyroid storm, maternal heart failure and obstetric problems. [27]

Given the risks involved in overtreatment/undertreatment, it is important to find a balance in the control of illness.

Numerous poor prenatal results are linked to maternal thyroid disease. Intrauterine growth restriction (IUGR), low birth weight, preterm birth, stillborn, neonatal respiratory distress and increased admittances to the neonatology intensive care unit (NICU) have all been linked to overt and subclinical hypothyroidism and autoimmunity. [26]

According to some meta-analysis SCH gives IUGR an odds ratio of about 1.5.

Furthermore, low free T4 levels (even within the normal range) and maternal hypothyroxinemia have also been associated with children's developmental delays and in addition to overt thyroid dysfunction there is evidence of increased rate of prenatal mortality (stillborn and early neonatal death) in women who test positive for antibodies. [28]

Prematurity, fetal growth limitation, and intrauterine death have also all been linked to hyperthyroidism in pregnancy, in particular. [28]

There is still, however, quite a few gaps in the amount of research that correlates thyroid disease and unfavorable fetal outcomes. Numerous previous investigations were observational or retrospective in nature, had irregular confounder adjustment and used different classifications of thyroid illness, particularly subclinical stages. [20]

In addition, there is a dearth of information on tertiary care settings and low and middle-income countries where access to care and iodine nutrition may be different. It is not yet clear how thyroid autoimmunity works in other than overt mal function, especially in regard to whether maternal and fetal threats are mediated by antibodies rather than hormone levels.

Furthermore, different guidelines have different scheduling for screening and intervention as well as different thresholds (such as TSH cutoffs), which results in unequal clinical practice. [29]

By having uniform diagnostic criteria and controlling for some of the confounding factors, the present study attempts to fill in these gaps by studying, prospectively, maternal problems, birth outcomes and thyroid health in neonatal infants of women with thyroid illness at a tertiary care hospital.

Research Objective

The objective of this research study is to determine the fetomaternal outcome of pregnancy in women with thyroid disease at tertiary Hospital

METHODOLOGY

This descriptive cross-sectional study was conducted in the department of Obstetrics and Gynecology, Bolan Medical College/ Hospital, Quetta. The sample size was first calculated as 470, using the sample size calculator of the WHO using 95% confidence level, 1.75% margin of error and expected frequency of pre-eclampsia of 3.9%. However, because of the feasibility limitations, a total of 250 patients were included in the study through non-probability consecutive sampling.

Pregnant women between 18 and 40 years of age with singleton pregnancy confirmed on ultrasound and gestational age of more than 20 weeks irrespective of parity in the presence of thyroid diagnostic based on the operational definitions were included. Women with a history of chronic hypertension, diabetes mellitus, renal disease, or liver disease were excluded in order to avoid the confounding effect on pregnancy outcome.

After approval from the Institutional Ethical Review Board as well as the College of Physicians and Surgeons Pakistan, patients with the inclusion criteria were recruited from the labour room. Written informed consent was collected from each participant. Baseline demographic data such as age, gestational age, number of pregnancies and type of thyroid disease were collected. All women were followed up till delivery and fetomaternal outcomes like gestational hypertension, pre-eclampsia, postpartum hemorrhage, LSCS, oligohydramnios, low birth weight and neonatal hyperbilirubinemia were determined according to pre-defined operational definitions. Data collection was done through was predesigned Questionnaire (Performa) and supervised by experienced consultant of at least five years of post-fellowship experience.

Data will be analyzed with statistical analysis program (IBM-SPSS 26), Mean SD or median (IQR) will be presented for quantitative variables like age, gestational age, parity and weight. Normality of the data will be measured using Shapiro wilk test. Frequency and percentage will be computed for qualitative variables like type of thyroid disease, gestational hypertension, pre-eclampsia, postpartum hemorrhage, LSCS, oligohydramnios, low birth weight and neonatal hyperbilirubinemia.

Fetomatemal outcomes will be stratified with regard to gestational age, age, parity, and type of thyroid disease. Post stratification using the chi-square/ fisher exact test will be applied, $p \leq 0.05$ will be considered statistically significant.

RESULTS

Table 1

Statistics

		Age	Gestational Age	Parity	Weight
N	Valid	250	250	250	250
	Missing	0	0	0	0
Mean		1.5680	1.9520	2.5520	2.0560
Median		2.0000	2.0000	3.0000	2.0000
Std. Deviation		.49635	.79513	1.05629	.84363

Table 2

Normality Test

	Shapiro-Wilk		
	Statistic	Df	Sig.
Age	.630	250	.000
Gestational Age	.800	250	.000
Parity	.870	250	.000
Weight	.779	250	.000

The Shapiro–Wilk test was applied to assess the distribution of continuous variables. Results showed that age, gestational age, parity, and weight all had p-values <0.05, indicating significant deviation from normality. Therefore, these variables were considered non-normally distributed.

Frequency Tables

Table 3

Type of Thyroid Disease

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Hypothyroid	137	54.8	54.8	54.8
	Hyperthyroid	113	45.2	45.2	100.0
	Total	250	100.0	100.0	

Table 4

Gestational Hypertension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	115	46.0	46.0	46.0
	No	135	54.0	54.0	100.0
	Total	250	100.0	100.0	

Table 5

Pre-eclampsia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	125	50.0	50.0	50.0
	No	125	50.0	50.0	100.0
	Total	250	100.0	100.0	

Table 6

Postpartum Hemorrhage

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	131	52.4	52.4	52.4
	No	119	47.6	47.6	100.0
	Total	250	100.0	100.0	

Table 7

LSCS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	121	48.4	48.4	48.4
	No	129	51.6	51.6	100.0
	Total	250	100.0	100.0	

Table 8

Oligohydramnios

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	115	46.0	46.0	46.0
	No	135	54.0	54.0	100.0
	Total	250	100.0	100.0	

Table 9

Low Birth Weight

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	119	47.6	47.6	47.6
	No	131	52.4	52.4	100.0
	Total	250	100.0	100.0	

Table 10

Neonatal Hyperbilirubinemia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	106	42.4	42.4	42.4
	No	144	57.6	57.6	100.0
	Total	250	100.0	100.0	

Stratification Analysis

Table 1

Gestational Hypertension & Gestational Age Crosstabulation According to Age. (18-28)

			Gestational Age		Total
			<37 weeks (Preterm)	≥37 weeks (term)	
Gestational Hypertension	yes	Count	27	31	58
		% within Gestational Hypertension	46.6%	53.4%	100.0%
		% within Gestational Age	51.9%	55.4%	53.7%
	No	Count	25	25	50
		% within Gestational Hypertension	50.0%	50.0%	100.0%
		% within Gestational Age	48.1%	44.6%	46.3%
Total		Count	52	56	108
		% within Gestational Hypertension	48.1%	51.9%	100.0%
		% within Gestational Age	100.0%	100.0%	100.0%

a. Age = 18-28

Post Stratification (Chi-Square Test)

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.128[b]	1	.721		
Continuity Correction[c]	.027	1	.869		
Likelihood Ratio	.128	1	.721		
Fisher's Exact Test				.847	.435
Linear-by Linear Association	.127	1	.722		
N of Valid Cases	108				

a. Age = 18-28

Table 2

Gestational Hypertension & Gestational Age Crosstabulation According to Age. (29-40)

			Gestational age		Total
			<37 weeks (Preterm)	≥37 weeks (term)	
Gestational Hypertension	yes	Count	30	27	57
		% within Gestational Hypertension	52.6%	47.4%	100.0%
		% within Gestational age	44.1%	36.5%	40.1%
	No	Count	38	47	85
		% within Gestational Hypertension	44.7%	55.3%	100.0%
		% within Gestational age	55.9%	63.5%	59.9%
Total		Count	68	74	142
		% within Gestational Hypertension	47.9%	52.1%	100.0%
		% within Gestational Age	100.0%	100.0%	100.0%

a. Age = 29-40

Post Stratification (Chi-Square Test)

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.859[b]	1	.354		
Continuity Correction[c]	.571	1	.450		
Likelihood Ratio	.859	1	.354		
Fisher's Exact Test				.394	.225
Linear-by-Linear Association	.853	1	.356		
N of Valid Cases	142				

a. Age = 29-40

b. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 27.30.

c. Computed only for a 2x2 table

Table 3

Parity & LSCS Crosstabulation According to Age. (18-28)

			LSCS		Total
			yes	No	
Parity	Nulliparous	Count	11	16	27
		% within Parity	40.7%	59.3%	100.0%
		% within LSCS	20.4%	29.6%	25.0%
	Primiparous	Count	16	14	30
		% within Parity	53.3%	46.7%	100.0%
		% within LSCS	29.6%	25.9%	27.8%
	Multiparous	Count	15	10	25
		% within Parity	60.0%	40.0%	100.0%
		% within LSCS	27.8%	18.5%	23.1%
	Grand multiparous	Count	12	14	26
		% within Parity	46.2%	53.8%	100.0%
		% within LSCS	22.2%	25.9%	24.1%
	Total	Count	54	54	108
		% within Parity	50.0%	50.0%	100.0%

	% within LSCS	100.0%	100.0%	100.0%

a. Age = 18-28

Post Stratification (Chi-Square Test)

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.213[b]	3	.529
Likelihood Ratio	2.225	3	.527
Linear-by-Linear Association	.268	1	.604
N of Valid Cases	108		

a. Age = 18-28

Table 4

Parity & LSCS Crosstabulation According to Age. (29-40)

			LSCS		Total
			yes	No	
Parity	Nulliparous	Count	13	10	23
		% within Parity	56.5%	43.5%	100.0%
		% within LSCS	19.4%	13.3%	16.2%
	Primiparous	Count	14	26	40
		% within Parity	35.0%	65.0%	100.0%
		% within LSCS	20.9%	34.7%	28.2%
	Multiparous	Count	24	23	47
		% within Parity	51.1%	48.9%	100.0%
		% within LSCS	35.8%	30.7%	33.1%
	Grand multiparous	Count	16	16	32
		% within Parity	50.0%	50.0%	100.0%
		% within LSCS	23.9%	21.3%	22.5%
Total		Count	67	75	142
		% within Parity	47.2%	52.8%	100.0%
		% within LSCS	100.0%	100.0%	100.0%

a. Age = 29-40

Post Stratification (Chi-Square Tests)

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.573[b]	3	.311
Likelihood Ratio	3.619	3	.306
Linear-by-Linear Association	.061	1	.805
N of Valid Cases	142		

a. Age = 29-40

Table 5

Type of Thyroid Disease & Low Birth Weight Crosstabulation According to Age. (18-28)

			Low birth weight		Total
			yes	No	
Type of Thyroid Disease	Hypothyroid	Count	21	33	54
		% within Type of thyroid disease	38.9%	61.1%	100.0%
		% within Low birth weight	45.7%	53.2%	50.0%
	Hyperthyroid	Count	25	29	54
		% within Type of thyroid disease	46.3%	53.7%	100.0%
		% within Low birth weight	54.3%	46.8%	50.0%
	Total	Count	46	62	108
		% within Type of thyroid disease	42.6%	57.4%	100.0%
		% within Low birth weight	100.0%	100.0%	100.0%

a. Age = 18-28

Post Stratification (Chi-Square Test)

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.606[b]	1	.436		
Continuity Correction[c]	.341	1	.559		
Likelihood Ratio	.607	1	.436		
Fisher's Exact Test				.560	.280
Linear-by-Linear Association	.600	1	.438		
N of Valid Cases	108				

a. Age = 18-28

Table 6

Type of thyroid disease & Low birth weight Crosstabulation According to age. (29-40)

			Low birth weight		Total
			yes	No	
Type of thyroid disease	Hypothyroid	Count	38	45	83
		% within Type of thyroid disease	45.8%	54.2%	100.0%
		% within Low birth weight	52.1%	65.2%	58.5%
	Hyperthyroid	Count	35	24	59
		% within Type of thyroid disease	59.3%	40.7%	100.0%
		% within Low birth weight	47.9%	34.8%	41.5%
Total		Count	73	69	142
		% within Type of thyroid disease	51.4%	48.6%	100.0%
		% within Low birth weight	100.0%	100.0%	100.0%

a. Age = 29-40

Post Stratification (Chi-Square Test)

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.531[b]	1	.112		
Continuity Correction[c]	2.018	1	.155		
Likelihood Ratio	2.541	1	.111		
Fisher's Exact Test				.127	.078
Linear-by-Linear Association	2.513	1	.113		
N of Valid Cases	142				

a. Age = 29-40

DISCUSSION

To assess the fetomaternal outcomes in women with thyroid illness; a descriptive cross-sectional study was performed at a tertiary care facility. In all, there were 250 people, and out of them 45.2% had hyperthyroidism and 54.8% had hypothyroidism. With the prevalence of pregnant hypertension (46%), pre-eclampsia (50%), postpartum hemorrhage (52.4%), cesarean delivery (48.4%), oligohydramnios (46%), low birth weight (47.6%) and neonatal hyperbilirubinemia (42.4%), prevalence of unpleasant outcomes were noteworthy. These results are in line with past research that found that women with thyroid dysfunction had higher rates of obstetric and newborn problems [16-19].

Our study pre-eclampsia (50%) and gestational hypertension (46%) rates were higher compared to Sreelatha et al (14.7% and lower rates of pre-eclampsia) [19] and Kiran et al (10.1% and 3.9% respectively) [18]. Regional iodine deficiency, selection bias in the hospital and difference in the research population could be the causes of this difference 52.4% of women suffered from postpartum hemorrhage (pph), which is much higher than most studies that have been published [18,19]. This suggests that an increase of the risk of PPH through predisposition of aberrant uterine atony and coagulation imbalance. is promoted by thyroid dysfunction, especially if unchecked

The high rates of surgical delivery in the context of hypothyroid pregnancies is consistent with the fact that in this study almost half of the women (48.4%) had cesarean section [16,17]. Obstetric problems like oligohydramnios, fetal distress and hypertension may be the reason of higher LSCS rate in our study.

Forty-six percent of the pregnancies had oligohydramnios and forty-seven-point six percent of the newborn babies had low birth weight. Sreelatha et al.'s rates (21.9% LBW, 16.7% oligohydramnios) [19] are very much lower than these rates. The prevalence of neonatal hyperbilirubinemia (42.4%) was much higher when compared to other research results (9.4% by Sreelatha et al.) [19]. As previously mentioned in previous research, these results prove the effects of maternal thyroid dysfunction on fetal growth limitation, compromised placental perfusion and neonatal adaptation [14,15].

Stratification was performed by maternal age groups (18-28 years and 29-40 years) for the investigation of effect modification.

Gestational Hypertension x Gestational Age: In the current cohort (both age groups), Pearson Chi-Square was not statistically significant (p=0.721 for 18-28 years; p=0.354 for 29-40 years). This means that there were no significant differences in the rates of gestational hypertension for preterm and term births as a function of maternal age.

Parity × LSCS: For both younger and older age groups, there was not a significant correlation between parity and LSCS (p=0.529 for 18-28 years; p=0.311 for 29-40 years). This suggests that risk of cesarean delivery was independent of parity in thyroid disease.

Type of Thyroid Disease X Low Birth Weight: In the younger age group (18-28 years) there was no significant association (p=0.436). In the older (29-40 years) group a trend towards significance was expressed (p=0.112), but still not statistically significant. This suggests that while hypothyroidism and hyperthyroidism both predispose to LBW; it was not statistically proven in this sample of women but the older women mothers with thyroid disease are at a relatively higher risk.

CONCLUSION

This study hampers on the significance of the insufficiency of thyroid glands and its great impact on the fetomaternal outcome throughout the pregnancy. A high prevalence of some of its complications was noticed including gestational hypertension (46%), pre-eclampsia (50%), postpartum hemorrhage (52.4%), cesarean delivery (48.4%) oligohydramnios (46%), low birth weight (47.6%), neonatal hyperbilirubinemia (42.4%) for all these 250 women affected with thyroid disease, which was related with both hypothyroidism as well as hyperthyroidism. Perhaps because of regional iodine deficit, delayed diagnosis and poor management, these bad outcomes were consistently higher than those found in previously published research. Clinically significant trends were noted, especially in regard to low birth weight in older women, even though stratification by maternal age, parity and type of thyroid disease did not offer statistically significant variations in results.

Our results call for the importance of early detection of thyroid conditions and early diagnosis and cautious treatment of thyroid conditions during pregnancy. Improving prenatal care by newborn screening, specific treatment and monitoring of thyroid function may reduce morbidity and improve overall results. It is recommended that future multicenter prospective studies with larger sample sizes confirm these results and more fully study risks that are specific for a given age or disease. Maintaining ideal thyroid health conditions among mothers is important for their own health and health of their newborns..

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