Section: Obstetrics & Gynaecology

Original Research Article

# A STUDY OF ASSOCIATION OF THYROID DISORDER IN PATIENTS WITH ABNORMAL UTERINE BLEEDING IN REPRODUCTIVE AGE GROUP

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## ABSTRACT

**Background:** Abnormal uterine bleeding (AUB) is a common gynaecological problem in India. The International Federation of Gynaecology and Obstetrics has compiled the causes of abnormal uterine bleeding in an acronym PALM-COEIN. PALM (structural causes): Polyps, Adenomyosis, Leiomyoma's, Malignant causes. COEIN (non -structural causes) coagulopathies, Ovulatory dysfunction, Endometrial pathology, Iatrogenic causes, Not classified. The objective is to determine the association between menstrual irregularities and thyroid dysfunction, 2. To identify the pattern of menstrual dysfunction among women with thyroid disorder, 3. To estimate the prevalence of thyroid diseases among women in the reproductive age group with abnormal uterine bleeding. **Materials and Methods:** It was prospective, Cross-sectional study was carried in the Department of Obstetrics & Gynaecology, Medical College Hospital & Research Centre in Uttar Pradesh among 100 patients for a period of July 2022 to June 2024. **Result:** An extremely strong correlation exists between thyroid issues and abnormal uterine haemorrhage, a benign but crippling condition. This study uses TSH, T3, and T4 measurements to demonstrate the correlation between AUB and thyroid dysfunction. The women in our study who had thyroid dysfunction were 36 years old on average. The age range of 25 to 35 years old accounted for 50% of the sample. There was no association between the parity and Thyroid Dysfunction. The highest number of individuals with complete thyroid dysfunction were multiparous. Menorrhagia (70%) is the most frequent kind of AUB presentation in this study. Menorrhagia is the most common aberration in thyroid dysfunction (70%), while polymenorrhoea, Menometorrhagia is the least common in both groups. The average platelet count for both groups is within normal ranges, at about 2.14 lakhs. Most common thyroid abnormalities seen were Hypothyroidism (13%) followed by subclinical hypothyroidism (4%) & Hyperthyroidism (3%). In patient with subclinical hypothyroidism futher anti-TPO antibody was done and found to be within normal range. Mean hemoglobin were higher in normal group. **Conclusion:** AUB is significantly associated with thyroid problems. It highlights how women who experience menorrhagia and amenorrhea are more likely to have hypothyroidism. Moreover, women who have oligomenorrhea have a higher frequency of hyperthyroidism. In the study group, hypothyroidism was prevalent in 13% of cases. In the study group, subclinical hypothyroidism was prevalent in 4% of cases. In the study group, hyperthyroidism was prevalent in 3% of cases. To identify them in the subclinical stage, it is recommended that women with early onset menorrhagia and oligomenorrhea, regardless of whether they exhibit symptoms and signs related to thyroid dysfunction, be offered thyroid function tests. Detecting subclinical thyroid disease early in the disease's progression with targeted medication and selective screening will likely prove to be a better option than invasive procedures like hysterectomy.

## INTRODUCTION

Abnormal uterine bleeding (AUB) is a common gynecological problem in India.

The International Federation of Gynaecology and Obstetrics (FIGO) and ACOG has compiled the causes of abnormal uterine bleeding in an acronym PALM-COEIN. PALM (structural causes): Polyps, Adenomyosis, Leiomyoma's, Malignant causes. COEIN (non -structural causes) coagulopathies, Ovulatory dysfunction, Endometrial pathology, Iatrogenic causes, not classified.[1]

Compared to women in other age groups, women of reproductive age experience abnormal bleeding more commonly due to anatomical factors.[2] Endometrial polyps and uterine leiomyomas are frequent disorders that typically have no symptoms, yet they are nevertheless significant contributors to irregular bleeding.[3] Among the ovulatory disorders, malfunctioning thyroid gland is one of the main causes. AUB is defined as any bleeding that happens inside the uterus that is not associated with any visible extra-genital sources or palpable pelvic diseases. The prevalence of thyroid problems in women is ten times higher than in men.[4-6] The autoimmune nature of thyroid diseases may be the cause of this increased frequency in females. Although the exact etiology of AUB is unknown, ovarian malfunction and the ensuing hormonal imbalance are the most frequently identified core pathology. Ovarian dysfunction can be secondary to endocrine disorders such as those of the hypothalamus, pituitary, and thyroid, or primary (resulting from a pathological lesion of the ovary). Menorrhagia is the primary symptom of hypothyroidism, according to a number of previous research. Since most patients with subclinical hypothyroidism are asymptomatic, most cases go undiagnosed.[7,8] Due to the high prevalence of subclinical hypothyroidism, screening women with irregular menstruation is warranted even if they show no symptoms or indicators of a thyroid condition.[9,10] Menon has shown how thyroxine can be used to treat AUB.[11] Additionally, Doifodi and Fernando have undertaken research to show that unnecessary hormonal prescription and surgical procedures can be avoided by addressing thyroid problems.[12] Thyroid disorder has long been known to have significant impact on the female reproductive system. Given that thyroid diseases affect women significantly more frequently than they do men, and that goitres manifest clinically during pregnancy, adolescence, and menopause, there may be a connection between the thyroid gland and the gonads.[13]

Thyroid hormones affect the gonads directly through their metabolic effects and indirectly through changes in anterior pituitary hormones, which regulate sexual activity.[14]

Thyroid dysfunction is among most important causes of menstrual disorders in reproductive women India. Menstrual irregularities, aberrant sexual development, infertility, miscarriages, and premature menopause are all possible symptoms of thyroid issues.

Menstrual irregularities can be caused by either hyperthyroidism or hypothyroidism. Menstrual abnormalities, infertility, and increased morbidity during pregnancy are common in women with thyroid dysfunction, but these effects can be reversed with medication.

Menstrual irregularities can occasionally be the initial sign of thyroid malfunction in women, but subclinical thyroid disorders (hyper and hypothyroidism) may go undiagnosed for years.[15]

In developed countries, the prevalence of subclinical hypothyroidism is 4–15%, while overt hypothyroidism is 4–5%.[14] Women of reproductive age who have hypothyroidism experience irregular menstruation, polycystic ovaries, miscarriages, and infertility.

Thyroid hormone levels affect the physiology of the hypothalamus-pituitary thyroid axis. AUB may appear prior to overt hypo- or hyperthyroidism.[16] In the past few years, thyroid disorders have become much more common in India. Also, it is discovered that thyroid issues are typically the underlying cause of AUB.

Association of Heavy menstrual bleeding (HBM) and subclinical hypothyroidism have not been carefully elicited whose incidence is as high as 9.5% in women.[17-19]

Menorrhagia in the early stages and oligomenorrhoea in the later stages are known to be caused by hypothyroidism, while amenorrhea and oligomenorrhoea are known to be caused by hyperthyroidism.[20]

The majority of anovulatory bleeding cases can be managed medically, preventing the need for surgery.[21]

Menstrual irregularities have been seen to improve with the diagnosis and treatment of thyroid dysfunction.[22]

The aim of the study is to evaluate thyroid function in patients exhibiting abnormal uterine bleeding who belong to reproductive age groups. The goal of the current investigation was to assess and identify thyroid dysfunction in AUB patient.

## MATERIALS AND METHODS

Cross-sectional study done on Women attending at Gynaecology clinic at a Medical College, Hospital and Research Centre were recruited for the study.

**Inclusion Criteria**

1. Age group 18-45 years
2. Women with menstrual disturbances.

**Exclusion Criteria**

1. Causes of AUB- PALM – COEIN
2. Patient taking thyroxine, heparin, aspirin, and antithyroid medications.
3. Diabetes mellitus with systemic hypertension in a known cause


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4. IUCD user
5. OCP user
6. Pregnant and lactating women

**Sampling Method:** All patients attending Obstetrics and gynaecology OPD diagnosed with AUB who were eligible as per the inclusion criteria were taken in the study.

**Data Collection-Tools & Techniques:** All required data were collected in using a pre-tested semi-structured interview schedule. Detailed history/ measures/ clinical examination / laboratory test was done & entered in Excel files for analysis.

Statistical analysis performed on all collected data, and pertinent statistical tests used, analysed in SPSS software. Pvalue <0.05 will be considered significant during data analysis. Prior to the study's commencement, approval from the Institutional Ethics Committee was obtained.

## RESULTS

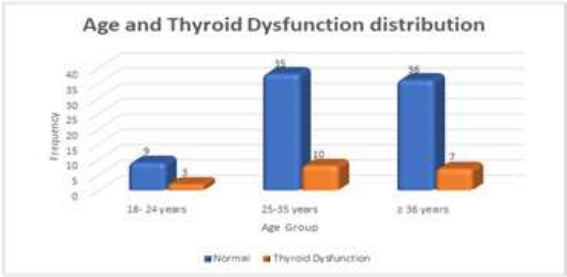


**Figure 1: Age and Thyroid Dysfunction distribution**

[Table 1 & Figure 1] shown that among the cohort of 80 normal patients 43.7% (35) and out of the 20 thyroid dysfunction participants 10 (50%) were in the age group 25-35 years. Above table 1 shown 36(45%) normal participants and 7(35%) thyroid function participants were in the age group ≥ 36 years. Age was not associated with the thyroid dysfunction.

**Table 1: Age and Thyroid Dysfunction distribution**

| Age (in years) | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | n | % | n | % | |
| 18- 24 years | 9 | 11.2 % | 3 | 15% | 12 |
| 25-35 years | 35 | 43.7 % | 10 | 50% | 45 |
| ≥ 36 years | 36 | 45 % | 7 | 35% | 43 |
| Total | 80 | 100% | 20 | 100% | 100 |

Chi Square =0.6985 P value= 0.705 (not significant)

**Table 2: Association of Parity with the Thyroid Dysfunction**

| Parity | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Nulliparous | 3 | 3.7 % | 2 | 10% | 5 |
| 1 | 8 | 10 % | 2 | 10% | 10 |
| 2 | 32 | 40% | 5 | 25% | 37 |
| 3 | 24 | 30 % | 7 | 35% | 33 |
| 4 | 8 | 10 % | 3 | 15% | 9 |
| 5 | 4 | 5 % | 0 | 0.0% | 4 |
| 6 | 1 | 1.2% | 1 | 5% | 2 |
| Total | 80 | 100.0% | 20 | 100.0% | 100 |

Chi Square =4.874 p value = 0.560 (not significant)

**Table 3: Association of the AUB types with the Thyroid Dysfunction**

| AUB Type | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Amenorrhoea | 16 | 20 | 2 | 10 | 18 |
| Hypomenorrhea | 5 | 6.25 | 2 | 10 | 7 |
| Menorrhagia | 34 | 42.5 | 14 | 70 | 58 |
| Menometorrhagia | 10 | 12.5 | 0 | 0 | 10 |
| Oligomenorrhoea | 13 | 16.2 | 2 | 10 | 15 |
| Polymenorrhoea | 2 | 2.5 | 0 | 0.0 | 2 |
| Total | 80 | 100.0 | 20 | 100.0 | 100 |

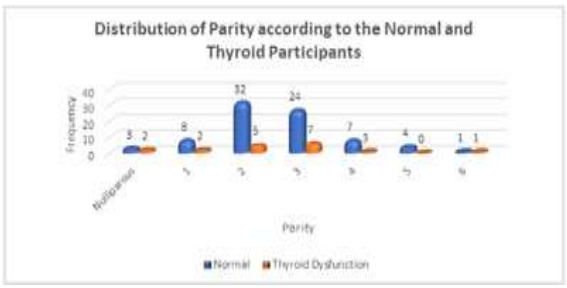


**Figure 2: Distribution of Parity according to the Normal and Thyroid Participants**

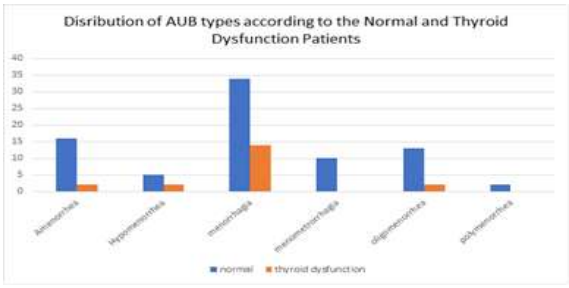


**Figure 3: Distribution of the AUB types according to the Normal and Thyroid Dysfunction Patients**


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Among the normal cohort mostly females i.e., 32 (40%) had parity 2 while among the thyroid dysfunction cohort most of the females having the parity 3 i.e., 7 (35%). There was no association between the parity and Thyroid Dysfunction.

Among the normal cohort Menorrhagia (42.5%) was most common types followed by Amenorrhoea (20%) and Oligomenorrhoea (16.2%) and also among the Thyroid Dysfunction cohort Menorrhagia (70 %) was most common types followed by Amenorrhoea (10%), Hypomenorrhea (10%) and Oligomenorrhoea (10 %). There was no association of the types with the thyroid dysfunction.

**Table 4: Distribution of Thyroid dysfunction types**

| Thyroid dysfunction types | Frequency | Percent |
|---|---|---|
| Sub- Hypothyroidism | 4 | 4.0 |
| Hypothyroidism | 13 | 13.0 |
| Hyperthyroidism | 3 | 3.0 |
| Normal | 80 | 80.0 |
| Total | 100 | 100.0 |

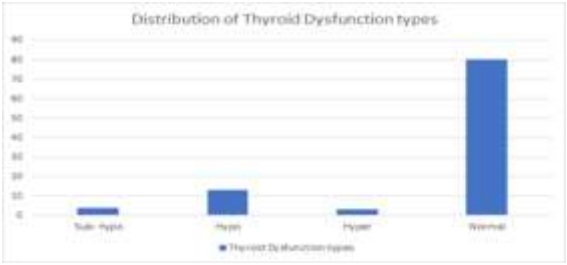


**Figure 4: Distribution of Thyroid dysfunction types**

Above [Table 4 & Figure 4] shown the Distribution of Thyroid dysfunction types and it was found that the Hypothyroidism (n=13) was the most common type followed by subclinical hypothyroidism (n=4) and hyperthyroidism (n=3).

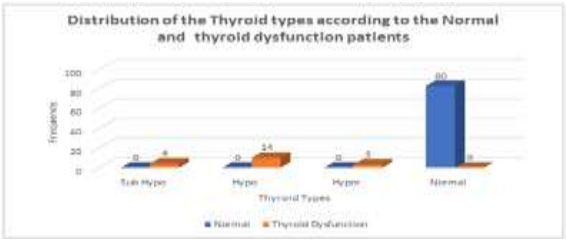


**Figure 5: Distribution of the Thyroid types according to the Normal and thyroid dysfunction patients**

Above [Table 5 & Figure 5] shown the Distribution of Thyroid dysfunction types and it was found that among thyroid dysfunction patients the Hypothyroidism (65%) was the most common type followed by subclinical hypothyroidism (20%) and hyperthyroidism (15%).

**Table 5: Amenorrhoea and Thyroid Dysfunction distribution**

| AUB | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | n | % | n | % | |
| Others | 64 | 80 | 18 | 90 | 82 |
| Amenorrhoea | 16 | 20 | 2 | 10 | 18 |
| Total | 80 | 100% | 20 | 100% | 100 |

Chi Square =1.084 P value= 0.297 (not significant)

**Table 6: Hypomenorrhea and Thyroid Dysfunction distribution**

| AUB | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | N | % | n | % | |
| Others | 75 | 93.75 | 18 | 90 | 93 |
| Hypomenorrhea | 5 | 6.25 | 2 | 10 | 7 |
| Total | 80 | 100% | 20 | 100% | 100 |

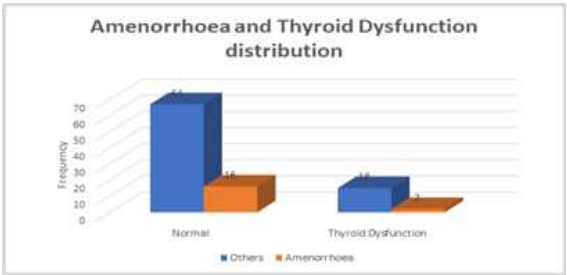


**Figure 6: Amenorrhoea and Thyroid Dysfunction distribution**

Above [Table 6] shown that Amenorrhoea presents in 20 % patients of normal cohort and 10 % patients of thyroid dysfunction cohort. No statistical significance between amenorrhoea and thyroid dysfunction.

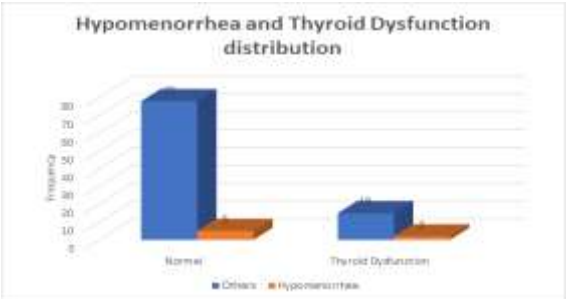


**Figure 7: Hypomenorrhea and Thyroid Dysfunction distribution**


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[Table 7] above indicates that 6.25% of patients in the normal group and 10% of patients in the thyroid dysfunction cohort have hypomenorrhea. There is no statistically significant link between thyroid problems and hypomenorrhea.

**Table 7: Menorrhagia and Thyroid Dysfunction distribution**

| AUB | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | N | % | n | % | |
| Others | 46 | 57.5 | 6 | 30 | 52 |
| Menorrhagia | 34 | 42.5 | 14 | 70 | 48 |
| Total | 80 | 100% | 20 | 100% | 100 |

Chi Square = 4.8478 P value = 0.027 (significant)

**Table 8: Menometorrhagia and Thyroid Dysfunction distribution**

| AUB | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | N | % | n | % | |
| Others | 70 | 87.5 | 20 | 20 | 90 |
| Menometorrhagia | 10 | 12.5 | 0 | 0 | 10 |
| Total | 80 | 100 | 20 | 100 | 100 |

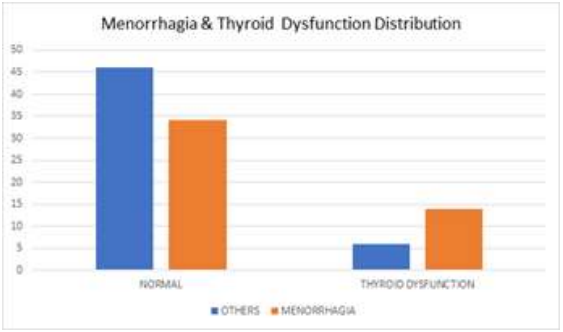


**Figure 8: Menorrhagia and Thyroid Dysfunction distribution**

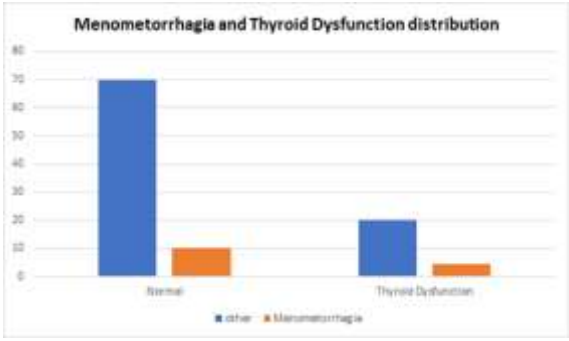


**Figure 9: Menometorrhagia and Thyroid Dysfunction distribution**

[Table 8 and Figure 8] above demonstrate that 42.5% of patients in the normal cohort and 70% of patients in the thyroid dysfunction cohort present with menorrhagia.

There is statistically significant link between thyroid problems and menorrhagia.

[Table 9 and Figure 10] above demonstrate that 16.2% of patients in the normal group and 10% of patients in the thyroid dysfunction cohort have oligomenorrhea. There is no statistically significant link between thyroid disease and oligomenorrhea.

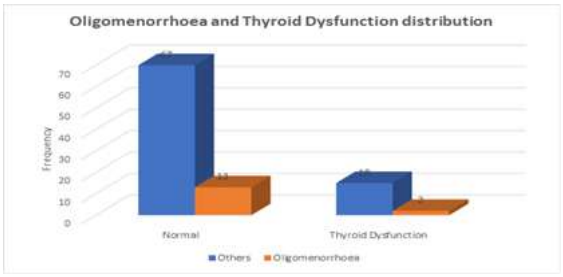


**Figure 10: Oligomenorrhoea and Thyroid Dysfunction distribution**

**Table 9: Oligomenorrhoea and Thyroid Dysfunction distribution**

| AUB | Normal | | Thyroid Dysfunction | | Total |
|---|---|---|---|---|---|
| | N | % | n | % | |
| Others | 67 | 83.7 | 18 | 90 | 85 |
| Oligomenorrhoea | 13 | 16.2 | 2 | 10 | 15 |
| Total | 80 | 100% | 20 | 100% | 100 |

chi Square =0.4902 P value= 0.483 (not significant)

**Table 10: Distribution of the age according to the Normal and Thyroid Dysfunction**

| Age (in years) | Normal | Thyroid Dysfunction | T value | P value |
|---|---|---|---|---|
| | Mean±SD (n=80) | Mean±SD (n=20) | | |
| | 34.28±7.88 | 34.00±8.23 | 0.131 | 0.896 |

Shown that the mean age was higher in normal cohort (34.28±7.88 years) as compared with the thyroid dysfunction cohort (34.00±8.23 years). Though the difference was insignificant.


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**Table 11: Distribution of the Duration according to the Normal and Thyroid Dysfunction**

| Duration | Normal | Thyroid Dysfunction | T value | P value |
|---|---|---|---|---|
| | Mean±SD (n=80) | Mean±SD (n=20) | | |
| | 6.40±3.62 | 7.47±6.57 | -0.654 | 0.522 |

[Table 11] shown that the mean duration was lower in normal cohort (6.40±3.62) as compared with the thyroid dysfunction cohort (7.47±6.57). Though the difference was insignificant.

**Table 12: Distribution of the BMI according to the Normal and Thyroid Dysfunction**

| BMI (in KG/m2) | Normal | Thyroid Dysfunction | T value | P value |
|---|---|---|---|---|
| | Mean ±SD (n=80) | Mean ±SD (n=20) | | |
| | 24.55±1.94 | 24.92±2.23 | -0.676 | 0.500 |

[Table 12] shown that the mean BMI (in KG/m2) was lower in normal cohort (24.55±1.94 kg/m2) as compared with the thyroid dysfunction cohort (24.92±2.23 kg/m2). Though the difference was insignificant.

**Table 13: Distribution of the haemoglobin level according to the Normal and Thyroid Dysfunction**

| HB (gm/dl) | Normal | Thyroid Dysfunction | T value | P value |
|---|---|---|---|---|
| | Mean ± SD (n=80) | Mean ± SD (n=20) | | |
| | 9.37±1.12 | 8.99±1.03 | 1.295 | 0.198 |

[Table 13] shown that the mean haemoglobin level was higher in normal cohort (9.37±1.12 gm/dl) as compared with the thyroid dysfunction cohort (8.99±1.03 gm/dl). Though the difference was insignificant.

## DISCUSSION

The study was conducted in the Department of Obstetrics and Gynaecology. at a Medical College in Western Uttar Pradesh. It comprises of 100 patients with abnormal uterine bleeding. An extremely strong correlation exists between thyroid issues and abnormal uterine hemorrhage, a benign but crippling condition. This study uses TSH, T3, andT4 measurements to demonstrate the correlation between AUB and thyroid dysfunction.

The women in our study who had thyroid dysfunction were 36 years old on average. C A Petta et al. (2007) found that the 148 women with menstrual disorders had a mean age of 34.6 years in their cross-sectional study.[23]

In their 20-year follow-up of the WHICKAM study, Vanderpump MP et al. (1995) found that the mean age at which thyroid problems occurred was 34 years old. They added that there is no age correlation for hyperthyroidism but an increase in hypothyroidism with age.[24]

The age range of 25 to 35 years old accounted for 50% of the sample. According to the current study's findings, thyroid problems and age groups do not significantly correlate. The age group of 25–35 years old accounted for most thyroid dysfunction cases (0%).

Among the normal cohort mostly females i.e., 32 (40%) had parity 2 while among the thyroid dysfunction cohort most of the females having the parity 3 i.e., 24(30%). There was no association between the parity and Thyroid Dysfunction. The highest number of individuals with complete thyroid dysfunction were multiparous. The lowest number of patients with thyroid dysfunction was among those in para 4 and above (11%). Patients with thyroid dysfunction para 1 (10%), para 2 (25%), and 35% were among those in para 3 patients.

Menorrhagia (70%) is the most frequent kind of AUB presentation in this study. Menorrhagia is the most common aberration in thyroid dysfunction (70%), while polymenorrhoea, Menometorrhagia is the least common in both groups.

Among the normal cohort Menorrhagia (42.5%) was most common types followed by Amenorrhoea (20%) and Oligomenorrhoea (16.2%), Polymenorrhoea (2.5%) and among the Thyroid Dysfunction cohort Menorrhagia (70 %) was most common types followed by Amenorrhoea (10%), Hypomenorrhea (10%) and Oligomenorrhoea (10%). There was no association of the types with the thyroid dysfunction.

This investigation contradicted Koutras's study,74 which found a significant rate of polymenorrhea in hypothyroidism.

Oligomenorrhoea and polymenorrhoea do not exhibit thyroid impairment.

Thyroid problems and AUB episodes do not significantly correlate. In the normal cohort (83.8%) and thyroid dysfunction cohort (72.1%), most women made their first visit to the gynecology outpatient department (OPD).

In the normal group (56.5%) and the thyroid dysfunction group (75%), most women are from the lower socioeconomic level. Thyroid problems and socioeconomic status do not significantly correlate.

25% of cases of thyroid dysfunction are associated with a family history of thyroid diseases.

Thyroid dysfunction and BMI are significantly correlated. The mean BMI of the overweight group is in the maximum limit, whereas the mean BMI of the normal group is 24.5. The BMI of the overweight group is 26.95.

In both groups, the average hemoglobin level is 9.37gm/dl. that the mean haemoglobin level was


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higher in normal cohort (9.37±1.12 gm/dl) as compared with the thyroid dysfunction cohort (8.99±1.03 gm/dl). Though the difference was insignificant

The mean duration was lower in normal cohort (6.40±3.62) as compared with the thyroid dysfunction cohort (7.47±6.57). Though the difference was insignificant.

This study uses a regression coefficient curve to predict thyroid dysfunction based on the length of AUB. ROC curve shown that area under curve was 0.547. The cut-off point observed was 5.5 with sensitivity 0.59 and specificity 0.53.

One hundred women in the reproductive age group who presented with abnormal uterine bleeding to our tertiary hospital took part in the study. The aim of the study was to assess the possibility of a relationship between thyroid dysfunction and irregular menstrual flow.

An extensive history was obtained per the accompanying proforma and anthropometric data. A comprehensive systemic and general examination was conducted, along with measurement taking. Each of these women had their thyroid function examined, and the findings were evaluated.

Study participants who were between the ages of 25 and 35 made up 50% of the thyroid dysfunction cohort and the 43.7% normal cohort.

In both groups, the majority were multiparous. 3% of the normal group and 10% of the thyroid dysfunction cohort were nulliparous.

Menorrhagia is the most prevalent form of AUB in both populations, 42.5% compared to 57.5%.

Of the participants in the study, and 13% had hypothyroidism, 4% had subclinical hypothyroidism and 3 % had hyperthyroidism.

To receive medical attention as soon as possible, the majority of AUB patients (81.8%) visited the gynecology OPD during the first episode.

A 25% correlation was found between a family history of thyroid diseases and thyroid dysfunction.

The platelet counts (2.21 lakhs) in both groups are within normal ranges.

In both groups, the mean hemoglobin percentage was 9.5 grams.

## CONCLUSION

The following information is highlighted by my study:

AUB is significantly associated with thyroid problems.

It highlights how women who experience menorrhagia and amenorrhea are more likely to havehypothyroidism. Moreover, women who have oligomenorrhea have a higher frequency of hyperthyroidism.

In the study group, hypothyroidism was prevalent in 13% of cases.

In the study group, subclinical hypothyroidism was prevalent in 4% of cases.

In the study group, hyperthyroidism was prevalent in 3% of cases.

To identify them in the subclinical stage, it is recommended that women with early onset menorrhagia and oligomenorrhea, regardless of whether they exhibit symptoms and signs related to thyroid dysfunction, be offered thyroid function tests. Detecting subclinical thyroid disease early in the disease's progression with targeted medication and selective screening will likely prove to be a better option than invasive procedures like hysterectomy.

## REFERENCES


1. Munro MG, Critchley Fraser I. The FIGO systems for nomenclature and classification of causes of abnormal uterine bleeding in reproductive years who needs them. Am J Obstet Gynaecol. 2012;207(4):259-65.
2. Committee on Practice Bulletins- Gynecology. Practice bulletin no. 128: Diagnosis of abnormal uterine bleeding in reproductive- aged women. Obstet Gynecol 2012;120 (1):197-206
3. Okolo S. Incidence, aetiology and epidemiology of uterine fibroids. Best Pract Res Clin Obstet Gynaecol 2008;22(4):571-588
4. Davey DA, Dewhurst. Textbook of obstetrics and gynaecology for postgraduates. 5th edn; 1990:590-600.
5. Thomas R, Reid RL. Thyroid disease and reproductive dysfunctions. Obstet Gynaecol.1987;70:789-98.
6. Berek JS, Adarshi EY, Hillard PA. In endocrine disorders. Novaks Gynaecology 12th edn. William's and Wilkins, Gopson paper ltd Noida; 2001: 864.
7. Olive D, Palter S. ReproductivePhysiology. In:Berek JS, eds. Berek and Novak's Gynaecology. 14th ed Philadelphia: Lippincott Williams and Wilkins Company; 2002: 161-86.
8. Thomas R. Reid RL. Thyroid diseases and reproductive dysfunction. Obstet Gynaecol.1987;70:789-98.
9. ACOG Practice bulletin: Management of anovulatory bleeding. Int J Gynaecol Obstet.2001; 72:263-71.
10. Fraser IS, Langham S, Hoschgraebes K. Health related quality of life and economic burden of abnormal uterine bleeding. Expert Review Obstet Gynaecol. 2009;4(2):179-89.
11. Menon VK, Baruch KE. Menstrual dysfunction and thyroid disease. J Obstet Gynae India. 1995;45(4);521-6.
12. Doifode CD, Fernandes K. Study of thyroid dysfunction in patients with Abnormal uterine bleeding. J Obstet Gynecol India. 2001; 51:93-5
13. Kris poppe, Brigitte velkeniers and Glinoer - Thyroid disease and female reproduction –clinical Endocrinology (2007)66 ,309-321
14. Ajmani NS, Sarbhai V, Yadav N, Paul M, Ahmad A, et al. (2016) Role of thyroid Dysfunction in patients with menstrual disorders in tertiary care centre of walled city of Delhi. J Obstet Gynaecol India 66(2): 115-119.
15. Kumar S, Kotur P. Effects of hypothyroidism in Indian women of reproductive age group- a reviewIndian J Obstet Gynecol Res. 2020;7(1):1-6
16. Bhavani N, Sathineedi A, Giri A, Chippa S, Reddy P, A study of correlation between abnormal uterine bleeding and thyroid dysfunction. International Journal of Recent Trends in science and Technology. 2015; 14(1):131-5.
17. Maruna P.Gynaecological aspects of thyroid disorders- A review. Ceska Gynecol.2006;71(4):332-8.
18. Davidson's principles and practice of medicine e-book. Elsevier Health Sciences; 2013 Dec 6. New Delhi: Butterworths; 2008.




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