e-ISSN: 0975-1556, p-ISSN:2820-2643

Available online on www.ijpcr.com

International Journal of Pharmaceutical and Clinical Research 2024; 16(6); 1601-1604

Original Research Article

Study of Thyroid Profile in Women with Abnormal Uterine Bleeding At Obstetrics and Gynaecology Department of SKMCH, Muzaffarpur, Bihar

Chetna[1], Abha Rani Sinha[2], Abha Sinha[3]

[1]Senior Resident, Department of Obstetrics and Gynaecology, Sri Krishna Medical College & Hospital, Muzaffarpur, Bihar

[2]Professor, Department of Obstetrics and Gynaecology, Sri Krishna Medical College & Hospital, Muzaffarpur, Bihar

[3]Professor and Head of Department, Department of Obstetrics and Gynaecology, Sri Krishna Medical College & Hospital, Muzaffarpur, Bihar

Received: 25-01-2024 / Revised: 23-02-2024 / Accepted: 26-03-2024

Corresponding Author: Dr. Chetna

Conflict of interest: Nil

Abstract:

Background: The thyroid gland is the most important endocrine organ since it affects practically every bodily organ's growth, development, metabolism, and function. Menstrual abnormalities can be caused by hypothyroidism or hyperthyroidism. Unusual bleeding from the uterus is one of the most prevalent yet challenging clinical presentations. Ten to twenty percent of women aged fifteen to fifty experience it. The goal of the current study was to determine how common thyroid conditions are in those who have abnormal uterine hemorrhage. Aims of this study to estimate the prevalence of thyroid disorders in women with abnormal uterine bleeding and to assess menstrual patterns in women with thyroid disorders.

Methods: Hospital based cross sectional study including 70 cases of abnormal uterine bleeding attending the outpatient department. History, physical examination, thyroid profile was done and results were analysed.

Results: In the present study, majority of women with Abnormal uterine bleeding were in the age group of 26-30yrs.(25.7%) followed by 20-25yrs(20%)18.5% were in 36-40 yr. group. Menorrhagia was the most common presenting symptom (78.5%) followed by oligomenorrhoea (38.6%). Most of the women were para II (42.9%). Thyroid disorder was prevalent in 20% of the study group. Hypothyroidism in 18.5% and Hyperthyroidism in 1.5% patients. Thyroid dysfunction was most common in women aged between 26-30yrs. Majority (85.8%) had menorrhagia and oligomenorrhoea (71.5%).

Conclusion: All women with abnormal uterine bleeding should undergo assessment of Thyroid function. Treatment of thyroid dysfunction in these women will avoid unnecessary interventions like hormonal treatment for arrest of bleeding and hysterectomy.

Keywords: Abnormal uterine bleeding, Hypothyroidism, Menstrual disorders, Thyroid dysfunction.

Introduction

Thyroid gland is one of the most vital endocrine organs which plays a major role in growth, development, metabolism and function of every organ in the body. Both Hypo and Hyperthyroidism can result in menstrual irregularities. [1] In women thyroid disorders can cause a broad spectrum of reproductive abnormalities ranging from abnormal sexual development, menstrual irregularities, infertility and premature menopause. [2,3]

Thyroid disorders are 10 times more common in females and this high prevalence is possibly due to autoimmune nature of thyroid disorders. [4] Thyroid disorders are the most common endocrine disorders in India. Incidence increases with age and its prevalence is 26% in women. [5] Hypothyroidism even in subclinical form can cause menorrhagia. [6,7]

It is because of failure of L.H. production, anovulation, built up of endometrium and resultant menorrhagia. Abnormal uterine bleeding is one of the most common, yet complicated clinical presentation. It occurs in 10-20% of women between 15-50 years of age. A.U.B. is a very broad term which can occur secondary to various etiologies and can be defined as any deviation from normal menstrual cycle and it includes changes in frequency, VMC, duration or amount of blood loss. Various terms used to describe A.U.B. include menorrhagia, oligomenorrhoea, hypomenorrhea and polymenorrhea. [9,10]

Depending on its etiology and to ease its management, A.U.B. has been categorized into 9 main categories by International Federation of Obstetrics and Gynaecology. The categories are arranged according to the acronym PALM-COEIN. Polyp, Adenomyosis, Leiomyoma, Malignancy and Hyperplasia; Coagulopathy, Ovulatory disorders, Endometrial causes, Iatrogenic, Not classified. Among these ovulatory disorders is common cause which can occur secondary to thyroid dysfunction. Any menstrual irregularity in non-pregnant women justifies screening for thyroid disorder.

Timely detection of thyroid dysfunction in women presenting with A.U.B. and its proper management can prevent unnecessary surgical interventions and helps to reduce financial burden and improves quality of life. Hence this study is undertaken to evaluate the thyroid dysfunction in women with Abnormal uterine bleeding.

Materials and Methods

Women with abnormal uterine bleeding who attended outpatient department of Sri Krishna Medical College and Hospital, Muzaffarpur, Bihar were included in the study. The case history and clinical examination was done, after obtaining the informed consent, they were requested to get thyroid function tests done and results were analysed. Other required investigations were done and patients were managed accordingly. The study protocol included detailed history taking with emphasis on age, parity, menstrual patterns. Evaluation by general examination and pelvic examination was done. Basic investigations Hb, B.T, C.T, T.L.C., D.C, Platelet count were done. Thyroid function tests and ultrasound abdomen were done in all patients.

Thyroid function tests were done by Chemiluminescence assay. Reference values were T3 70-204ngm/dl. T4 5.5-11micro gms/dl and T.S.H. 0.35-5.5milli I.U./ml.

Results

Table 1: Age wise distribution of women with Abnormal uterine bleeding

Sl. No.	Age group (yrs.)	No. of Patients	Percentage
1	15-19	4	5.7
2	20-25	14	20
3	26-30	18	25.7
4	31-35	7	10
5	36-40	13	18.5
6	41-45	6	8.6
7	46-50	6	8.6
8	51-55	2	2.8

In the present study, majority of patients were in the age group of 26-30 years (25.7%) followed by 20-25year group (20%),next was 36-40 yr. group(18.5%).8.6% of cases were seen in 41-45year group and 46-50 year group,5.7% in 15-19 year group and 2.8% in 51-55year group.

Table 2: Parity wise distribution of patients

Sl. No.	Parity	No. of patients	Percentage
1	Nullipara	15	21.
2	Para I	18	25.7
3	Para II	30	42.9
4	Para III and above	7	10

In the present study, most of the women with A.U.B. were Para II constituting 42.9%,next major group was Para I(25.7%)21% were nulliparous and 10% were Para III and above.

Table 3: Distribution of patients according to menstrual patterns

Sl. No.	Menstrual pattern	No of patients	Percentage
1	Menorrhagia	55	78.5
2	Oligomenorrhoea	27	38.6
3	Hypomenorrhoea	11	15.7
4	Polymenorrhoea	6	8.6

In the present study, Menorrhagia was the most common presenting symptom (78.5%) 0bserved, followed by oligomenorrhoea seen in 38.6% of patients. Hypomenorrhoea was observed in 15.7% patients and 8.6% had polymenorrhoea.

Table 4: Distribution of Patients according to Thyroid function Status

Sl. No.	Thyroid status	No. of patients	Percentage
1	Euthyroid	56	80
2	Hypothyroid	13	18.5
3	Hyperthyroid	1	1.5

In the present study, 80% of patients with A.U.B. were Euthyroid, 18.5% were hypothyroid and 1.5% were hyperthyroid.

Table 5: Age distribution of patients with thyroid dysfunction

Sl. No.	Age group (years)	No. of patients	Percentage
1	20-25	2	14.3
2	26-30	7	50
3	35-40	1	7.2
4	41-45	4	28.6

In the present study, most of the patients with thyroid dysfunction were in the 26-30 year group followed by 41-45 year group with 28.6% patients, 14.3% were in 20-25year group and 7.2% were in 41-45 year group.

Table 6: Menstrual patterns in patients with thyroid dysfunction

Sl. No	Menstrual pattern	No of patients	Percentage
1	Menorrhagia	12	85.2
2	Oligomenorrhoea	10	71.5

Most common menstrual irregularity found in our study group with thyroid dysfunction was menorrhagia (85.2%) and oligomenorrhoea was next common presenting symptom (71.5%).

Discussion

There were 70 women included in the study. Age wise distribution of patients as in Table 1 showed that most of them were in 26-30 yr. group (25.7%) followed by 20-25 year group (20%) which are concurrent with results of Gowri M et al, (majority 22% in 26-30year group followed by 21% in 20-25 year group). [3] Most of them were Para II (42.9%) and Para I(25.7%) as shown in Table 2. Gowri M et al [3] reported similar observations (majority group 39.4% para II and 20% nulliparous). In the present study, 78.5% had menorrhagia, it being the most common symptom followed by oligomenorrhoea in (38.6%). Javed Ali et al [5] reported similar results (most of them had menorrhagia (42%) and oligomenorrhoea in 26%). [14,15] In the present study 80% were found to be euthyroid and 20% had thyroid dysfunction. Hypothyroidism in18.5% and hyperthyroidism in 1.5%. Kumar A. H.S. et al [8] found similar prevalence in their study (81% euthyroid, 16.5% hypothyroid and 2.5% hyperthyroid. Most common age group where thyroid dysfunction present was 26-30 years, majority with thyroid dysfunction had menorrhagia (85.2%) followed by oligomenorrhoea (71.5%) Sangeetha Pahwa et al [13] reported menorrhagia in 50% and Kaur T et al [6] reported it in 64% of their study group as major symptom.

Conclusion

Prevalence of Hypothyroidism is more in patients in the age group of 26-30 yrs, Para II women with Menorrhagia being the most common symptom in women with abnormal uterine bleeding. Every woman with menstrual irregularities should undergo thyroid assessment at initial visit.

Correction of the thyroid disorder in patients with dysfunction of thyroid may obviate the need for unnecessary interventions like hormonal treatment for arrest of bleeding and hysterectomy.

References

1. ACOG Practice bulletin: Management of anovulatory bleeding. Int J Gynaecol Obstet. 2001; 72:263-71.
2. Doifode CD, Fernandes K. Study of thyroid dysfunction in patients with dysfunctional uterine bleeding. J Obstet and gynecol of India. 2001; 51(2):93-5.
3. Gowri M, Radhika BH, Harshini V, Ramaiah R. Role of thyroid function tests in women with abnormal uterine bleeding. Int J Reprod Contracept obstet Gynecol 2014; 3:54-7.
4. Hollowell JG, Staehling NW, Flanders WD. Serum T.S.H. T4 and Thyroid antibodies in the United States population. (1988 to 1994): National Health and Nutrition Examination Survey (NHANES III). J Clin. Endocrinol. Metab. 2002; 87(2):489-99.
5. Javed Ali, Karuna Kanta Das, Pronamika Konyak; Study of Relation of Thyroid Profile with Abnormal Uterine Bleeding. Scholars Journal of Applied Medical Sciences (SJAMS), 2015; 3(7D):2688-2692.
6. Kaur T, Aseeja V, Sharma S. Thyroid dysfunction in Dysfunctional Uterine Bleeding J Obstetrics and Gynecology.2011; 2:WMC002235.
7. Kochupillai N. Clinical Endocrinology in India. Curr Sci. 2000; 79:1061-7.

8. Kumar AHS, Saravanan S A.A study of prevalence of thyroid disorders in patients with abnormal uterine bleeding(AUB).Int J Reprod Contracept Obstet Gynecol 2017;6:1036-9.
9. M.G. Munro. FIGO Classification system (PALM-COEIN) for causes of abnormal uterine bleeding in non-gravid women of reproductive age. Int J Gynecol Obstet. 113(2011): 3-13.
10. Mazzaferri EL. Evaluation and management of thyroid disorders in women. Am J Obstet Gynaecol.1997; 176(3):144-9.
11. Nesse R. Abnormal vaginal bleeding in perimenopausal women. Am Family Physician.1989; 40:185.
12. Olive D, Palter S. Reproductive Physiology. In: Berek J.S, eds. Berek and Novak's Gynaecology.14thed Philadelphia: Lippincott Williams and Wilkins Company; 2002:161-86.
13. Pahwa S, Guptha S, Kumar J. Thyroid Dysfunction in dysfunctional uterine bleeding. J adv Res Biol Sci.2013; 5(1):78-83.
14. Speroff L. Glass RH, Kass NG In: Clinical Gynaecolog Endocrinilogy and infertility. 6th ed. Baltimore: Lippincott Williams and Wilkins. 1999; 201-238,575-9.
15. Thomas R. Reid RL. Thyroid diseases and reproductive dysfunction. Obstet Gynaecol.1987; 70:789-98.