



THE STUDY OF THYROID FUNCTION IN ABNORMAL UTERINE BLEEDING

Gynaecology

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ABSTRACT

Background: AUB is any abnormal uterine bleeding in the absence of any palpable pelvic pathology and demonstrable extra genital causes. AUB is responsible for 10% of gynaecological complaints. Hypothyroidism and Hyperthyroidism leads to menstrual irregularities. Females with thyroid gland abnormality have chances of reproductive abnormalities ranging from abnormal sexual development, menstrual irregularities, infertility and premature menopause. The objective of this study is to estimate the prevalence of thyroid disorders in women with abnormal uterine bleeding and to assess the menstrual pattern in women with thyroid disorder

Methods: The present study was conducted in the Department of Obstetrics and Gynecology, Darbhanga Medical College and Hospital, Laheriasarai, Bihar. Total 100 women of reproductive age group between 15-45 years women with abnormal bleeding were studied. Quantitative determination of T3, T4, and TSH by CLIA estimated in autoanalyser.

Results: About 100 women participated in the study in which Most of the subjects belong to 26-30 years of age group (30%) followed by 20-25 yrs (22%). 13% in age group 36-40. menorrhagia was the most common presenting symptom (66%) followed by oligomenorrhoea (21%). Thyroid disorders were prevalent in 22%. hypothyroid in 20% and hyperthyroidism in 2%. Majority had menorrhagia 66% followed by oligomenorrhoea 21%. among thyroid dysfunction 63.3% had menorrhagia and 36.36% had oligomenorrhoea.

Conclusions: So, biochemical evaluation of thyroid functioning should be made mandatory in all provisionally diagnosed cases of AUB to detect thyroid dysfunction.

KEYWORDS

Abnormal uterine bleeding, Thyroid function

INTRODUCTION

Abnormal uterine bleeding includes both structural and non structural causes. Structural causes are polyp, adenomyosis, fibroids, malignancies and hyperplasia and non-structural causes includes coagulopathy, endometrial causes, iatrogenic and non classified causes. 20% women in gynaecology present with abnormal uterine bleeding. Abnormal uterine bleeding is any abnormal uterine bleeding in the absence of any palpable pelvic pathology and demonstrable extra genital causes. It is well recognized that thyroid dysfunction has profound effects on female reproductive system in terms of delayed puberty, AUB, infertility, recurrent pregnancy loss, premature menopause. Thyroid disorders are 10 times more common in females than males. This high prevalence in female is possibly due to autoimmune nature of thyroid disorders. The underlying cause of AUB is uncertain but most common associated basic pathology is ovarian dysfunction and consequent hormonal imbalance. Ovarian dysfunction may be primary (pathological lesion of ovary) or secondary to endocrine dysfunction e.g. Hypothalamus, pituitary and thyroid. Various studies have done earlier show that menorrhagia being the chief symptom in hypothyroidism.

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. In women thyroid disorders can cause a broad spectrum of reproductive abnormalities ranging from abnormal sexual development, menstrual irregularities, infertility and premature menopause. Abnormal uterine bleeding is one of the most common, yet complicated clinical presentation. Timely detection of thyroid dysfunction in women presenting with AUB 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.

AIMS AND OBJECTIVES

- 1- to estimate the prevalence of thyroid disorders in women with abnormal uterine bleeding and to
- 2- TO assess the menstrual pattern in women with thyroid disorder

MATERIAL AND METHODS

The present study was conducted in the Department of Obstetrics and Gynecology, Darbhanga Medical College and Hospital, Laheriasarai, Bihar, 100 women of reproductive age group 15-45 with abnormal uterine bleeding were included in the study.

Inclusion criteria

Women with menstrual disorders like menorrhagia, oligomenorrhoea, hypomenorrhoea, polymenorrhoea, metrorrhagia, and amenorrhoea.

Exclusion criteria

Patients with menstrual disorder having any known organic pathology like uterine fibroid, adenomyosis, tubercular endometriosis, polyp, uterine malignancy, etc. and patients with IUCD in utero were excluded from study.

After taking detailed history regarding age, parity, age of menarche, menstrual disorders and dysmenorrhoea, general physical examination along with pelvic examination was carried out in women with menstrual complaints. Routine basic investigation and thyroid profile that includes T3, T4 and TSH was performed in all patients. These tests were done in random blood samples as the variation in TSH secretion due to circadian rhythm is small and does not influence the timing of blood sampling.

Thyroid function test were done by Chemiluminescence assay. Reference value were T3-70-204 ng/dl, T4-5.5-1.1 microgm/dl and TSH-0.35-5.5 mIU/ml.

RESULTS

There were 100 women included in the study. The age groups of all the patients are mentioned in Figure 1.

Table 1 : Distribution of patients according to age intervals

AGE	NO.OF PATIENT	%
15-19	8	8
20-25	22	22
26-30	30	30
31-35	15	15
36-40	13	13
>40	12	12

Table2 : Distribution of subject according to parity

parity	No. of patient	%
NULLIPARA	16	16
PARA1	28	28
PARA2	45	45
PARA3&Above	11	11

Most of the subjects belong to 26-30 years of age group. Next most common group in study is 20-25 years showing 20-35 years age group are most effected group in study. Among 100 cases of AUB, 16 (16%) patients were unmarried or nulliparas. 73 (73%) patients were para one & 2,11 (11%) patients were greater para 3. In this study maximum numbers of patients were para one to 2.

Table :3 Distribution of subjects according to THYROID FUNCTION

Thyroid status	No.of patient	%
Euthroid	78	78
hypothyroid	20	20
hyperthyroid	2	2

In present study 78%of patients were Euthyroid,20%were hypothyroid and 2% were hyperthyroid.

Table:4Distribution of subjects according to menstrual pattern

Distribution of subjects according to menstrual pattern	No. of patients	%
Menorrhagia	66	66
Oligomenorrhea	21	21
Polymenorrhagia	5	5
hypomenorrhea	8	8
Total	100	100

In present study menorrhagia was the most common presenting symptom(66%) followed by oligomenorrhea in (21%)

Table :5 menstrual pattern in patients with thyroid dysfunction

Menstrual pattern	No. of patient	%
Menorrhagia	14	63.63
Oligomenorrhea	8	36.36

DISCUSSION

Menorrhagia is a frequent symptom in gynaecological practice resulting in need for repeated curettage and hysterectomy with its relative morbidity and mortality. Menstrual blood loss is considered to be excessive when it is greater than 80ml per cycle.

The aetiology of menorrhagia is much differential diagnosis. It may be due to systemic conditions like hormonal imbalance like hypothyroidism and hyperthyroidism, or lesions of genital tract like endometrial hyperplasia, pelvic inflammatory disease, endometriosis, benign tumours (leiomyoma, polyps) and malignant tumours (endometrial carcinoma). In more than half of the subjects the cause is usually not apparent.

Thyroid dysfunction is one of the common causes of excessive menstrual blood loss and menstrual irregularities (Table 2). It may also lead to anovulation, infertility and recurrent abortion. The onset of hypothyroidism is so insidious that classic clinical manifestation may take months and years to appear. Furthermore menorrhagia may be the only presenting complain in hypothyroid women.

With the advent of modern hormonal assay techniques precise estimation of thyroid hormones in serum is possible in a rapid and reliable manner. Treatment of hypothyroidism is very satisfying as it usually relieves patient of all the symptoms.

Hence, in investigating a patient with menorrhagia and/or menstrual irregularities, evaluation of thyroid functional status forms an essential component. Early detection of hypothyroidism in such subjects saves the patient from recurrent curettage and at times hysterectomy.

Thyroid disorders are more common in women with menstrual irregularities as compared to general population. 100 women participated in the study in which Most of the subjects belong to 26-30 years of age group (Figure 1). Maximum patients i.e 73 (73%) patients were para one to 2.Gowri M et al, reported similar observation (majority group 39.4%) para 2 and 20% nulliparous. Commonest cause bleeding pattern was menorrhagia 66%.

In present study 78% were euthyroid, 22%, had hypothyroidism & 2% hyperthyroidism.

Kumar A.H.S et al found similar prevalence in their study(81% euthyroid,16.5 hypothyroid,2.5%hyperthyroid).

In present study 63.6% had menorrhagia, being the most common symptom followed by oligomenorrhea in 36.36% in women with thyroid dysfunction.

Javed et al reported similar results most of them had menorrhagia42% and oligomenorrhea 26%.

So, screening selected subject groups is could be justified, based on the significant risks to offspring, the probable benefit of treatment, and the probable low incidence of adverse outcomes from intervention.

CONCLUSION

As there is high incidence of thyroid diseases in women with abnormal uterine bleeding are to be screened. This would also avoid unnecessary hormonal treatment and surgery in these patients. It concludes that thyroid disorder should be considered as an important aetiological factor for menstrual abnormality.

Thus, biochemical evaluation T3, T4 and TSH estimations should be made mandatory in AUB cases to detect profound and subclinical thyroid dysfunction.

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