



THYROID DYSFUNCTION IN DYSFUNCTIONAL UTERINE BLEEDING

Endocrinology

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ABSTRACT

Introduction: Dysfunctional uterine bleeding is an abnormal bleeding from the uterus in the absence of organic disease of genital tract and demonstrable extragenital cause. Thyroid dysfunction is manifest by large number of menstrual aberrations.

Methods: This study is aimed at detecting thyroid dysfunction in patients with provisional diagnosis of dysfunctional uterine bleeding. This prospective study was conducted on consecutive 100 cases of clinically diagnosed dysfunctional uterine bleeding in the age group of 19 to 45 years attending gynae outpatient department at Govt. Hospital Sarwal.

Results: Patients were tested for their thyroid function by T3, T4, and TSH estimation. 22% of patients who were studied had thyroid dysfunction out of which 11% had subclinical hypothyroidism, 8% had hypothyroidism and only 3% of patients had hyperthyroidism. Conclusion: Subclinical hypothyroidism and profound hypothyroidism together were the commonest thyroid dysfunction and menorrhagia was the commonest menstrual abnormality.

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KEYWORDS:

Dysfunctional uterine bleeding, Abnormal uterine bleeding, Thyroid dysfunction.

INTRODUCTION

Dysfunctional uterine bleedings is one of the most commonly encountered disorders in gynaecology and is associated with range of symptoms. frequent complaints includes heavier or prolonged menstrual flow with or without pain, passage of clots, weakness and lethargy associated with social embarrassment, significant alteration in life style of individual and sexual compromise (1,2).

Abnormal uterine bleeding is a frequent debilitating symptom resulting in unnecessary, incorrect and expensive treatment and invariably ends up in surgical treatment with its attendant risk of morbidity and mortality. It occurs in 9-14% of women between menarche and menopause, significantly impacting quality of life and imposing financial burden (3). After excluding the structural causes of AUB (abnormal uterine bleeding) most cases are associated with failure of ovulation and consequent hormonal imbalance. Ovarian dysfunction may be caused by either a primary defect or pathological lesion within the ovary itself or may be secondary to malfunction of other endocrine glands notably hypothalamus, pituitary and thyroid (4).

Abnormality of menstruation is primarily a disorder of hypothalamic-pituitary-ovarian axis either through direct effect or indirectly by their effect on target organ. Among the endocrinological causes, after the pituitary, thyroid is probably the most important endocrine organ which exerts a broad range of effect on the development, growth, metabolism and function of virtually every organ system in the human body. Both hypothyroidism and hyperthyroidism may result in menstrual disturbances. Sub clinical thyroid dysfunction may go unnoticed by unwary clinicians as these patients do not exhibit clinically overt physical signs and symptoms (5).

MATERIAL AND METHODS

This prospective study was conducted in the Gynaecology out Patients Department of Sarwal Hospital Jammu for one year on 100 consecutive patients of dysfunctional uterine bleeding in the reproductive age group (19-45 years). Detailed history was obtained, general physician examination, systemic examination, routine gynaecological examination and examination of thyroid gland was done.

Patient with previous known thyroid disorder, history of abortion within 3 months, IUCD/OC pill users, history of Child birth within 1 year, known case of cancer of genital organs, known case of liver disorder or coagulopathies, or known case of autoimmune disorder

were excluded from study.

All the patients were subjected to estimation of serum T3, T4, TSH besides baseline biochemical evaluations. Depending upon their T3, T4 and TSH value, patients were categorised into following four groups:

- 1) Euthyroid
- 2) Subclinical hypothyroid
- 3) Hypothyroid
- 4) Hyperthyroid.

RESULTS

Dysfunctional uterine bleeding is one of the most frequently encountered conditions in gynaecological practice. Maximum number (46%) of patients in the study group belongs to the age group of 31-40 years. Maximum number of patients were Para 2 (24%) and minimum number of patients presenting as clinical DUB were of Para 5.

43% of patients have menorrhagia, 18% have acyclical bleeding, and 17% have polymenorrhagia followed by oligomenorrhoea and others (Table 1).

Maximum number of apparently normal patients with DUB belonged to the category of sub clinical hypothyroidism (11%). Overt hypothyroidism was present in only 8% of cases. 3% of cases had hyperthyroidism (table 2).

DISCUSSION

Menorrhagia is a frequent debilitating symptom in gynaecological practice resulting in need of repeated curettage and hysterectomy with its attendant morbidity and mortality. The aetiology of menorrhagia is very diverse. Thyroid dysfunction is one of the commonest causes of excessive menstrual blood loss and menstrual irregularities.

The onset of hypothyroidism is so insidious that classic clinical manifestation may take months and years to appear. 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 gratifying as it usually relieves patients 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.

In our study, we found 22% prevalence of thyroid dysfunction in dysfunctional uterine bleeding patients out of whom 8% were hypothyroid and 3% had hyperthyroidism and 11 had subclinical hypothyroidism. Doifode et al showed 28.17% incidence of hypothyroidism in DUB patients (6). Study by Neelu Sharma found 22% prevalence of hypothyroidism in DUB cases (7). T. Kour in her study found that 14% cases of DUB had hypothyroidism (8).

Wilansky and Grelsman based on evaluation of clinically euthyroid menorrhagic women by the thyrotropin-releasing hormone test found a prevalence of 22.33% of early hypothyroidism (9). Mukherjee and Gosh showed 44% incidence of hypothyroidism in DUB in their study (10). Menorrhagia was most common pattern of bleeding in our hypothyroid group of patients (27.9%) while oligomenorrhoea was commonest pattern in hyperthyroid patients (table 3). Many studies have shown that among the patients with abnormal thyroid functions significantly higher number of patients had hypothyroidism associated with menorrhagia as an abnormal menstrual pattern.

It is seen that the incidence of menorrhagia is 30-60% in case of hypothyroidism in most of the studies. However, Talasila Shruthi found metrorrhagia (20%) as the most common presentation in hypothyroid patients (11). Ingbar et al and Pearce et al in their study demonstrated that menstrual irregularity is significantly more frequent in hypo or hyperthyroidism as compared to control cases. In hypothyroidism, polymenorrhoea is common and in hyperthyroidism, hypomenorrhoea is common (12, 13). According to Redmond, any type of menstrual irregularity can occur with either hypo or hyper function of the thyroid (14).

Conclusion: Thyroid disorder should be considered as a significant aetiological factor for menstrual abnormalities. These patients with thyroid dysfunction, if given medical treatment, it is possible to evade avoidable hormonal treatment and expensive surgical interventions.

Table 1 : Distribution of patients according to bleeding pattern.

Type of Bleeding	No. of cases	Percentage
Acyclical	18	18%
Hypomenorrhoea	1	1%
Menorrhagia	43	43%
Metrorrhagia	5	5%
Oligomenorrhoea	11	11%
Polymenorrhoea	5	5%
Polymenorrhagia	17	17%
Total	100	100%

Table 2: Distribution of patients according to thyroid function.

Thyroid Function	No. of cases	%age
Euthyroid	78	78%
Hypothyroid	8	8%
Subclinical hypothyroid	11	11%
Hyperthyroid	3	3%
Total	100	100%

Table 3. Bleeding pattern in Euthyroid vs thyroid dysfunction.

Type of bleeding disorder	Number of cases	Euthyroid (%)	Hypothyroid (%)	Subclinical Hypothyroid (%)	Hyperthyroid	Total
Acyclical	18	14 (77.77%)	2 (11.11%)	1 (5.55%)	(5.55%)	(22.26%)
Hypomenorrhoea	1	1 (100%)	-	-	-	-
Menorrhagia	43	31 (72.09%)	4 (9.30)	8 (18.60)	0	12 (27.9%)
Metrorrhagia	5	4 (80%)	1 (20%)	-	-	(20%)

Oligomenorrhoea	11	(81.81%)	-	-	2	
Polymenorrhoea	5	5 (100%)	-	-	-	
Polymenorrhagia	17	14 (82.35%)	(5.88%)	(11.76%)	0	(17.64%)

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