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CORRELATION OF ABNORMAL THYROID FUCTION TESTS WITH INCIDENCE OF DYSFUNCTIONAL UTERINE BLEEDING IN WOMEN ATTENDING TERTIARY CARE CENTRE IN CENTRAL RURAL INDIA.

Clinical Biochemistry

Mr. Pravesh Kumar Pal	Research Scholar, Department Of Biochemistry, Index Medical College And Research Centre, Indore.
Dr. Shreya Nigoskar	Professor and Head, Department of Biochemistry, Index Medical College and Research Centre, Indore.
Dr. Abhiraj Ramchandani	Professor, Department of Pathology, Amaltas Institute of Medical Sciences, Dewas.
Dr. M. K. Shaikh	Professor and Head, Department of Biochemistry, Amaltas Institute of Medical Sciences, Dewas.
Dr. Kirti Ramchandani*	Associate Professor, Department of Microbiology, R. D. Gardi Medical College, Ujjain. *Corresponding Author
Dr. Munesh Sharma	Professor and Head, Department of Microbiology, Amaltas Institute of Medical Sciences, Dewas.
Dr. Amarnath Yadav	Associate Professor, Department of Pathology, Amaltas Institute of Medical Sciences, Dewas.
Dr. Mamta Gupta	Professor and Head, Department of Pathology, Amaltas Institute of Medical Sciences, Dewas

ABSTRACT

Dysfunctional Uterine Bleeding accounts for 10% of all gynaecology related complaints. The aim of this study is to evaluate the thyroid function in patients having abnormal menstrual bleeding from puberty to premenopausal age groups which is interesting and justifiable and will help in further management of DUB and also know the prevalence of thyroid dysfunction in patients provisionally diagnosed as DUB. The objectives are to evaluate and detect the thyroid dysfunction in patients with dysfunctional uterine bleeding in reproductive age group and to refer positive cases to the physician for further treatment of thyroid disorder.

KEYWORDS

•Dysfunctional Uterine Bleeding (DUB) •Thyroid Dysfunction •Abnormal Menstrual Bleeding Reproductive Age Group

INTRODUCTION

Dysfunctional uterine bleeding is an abnormal bleeding from the uterus in the absence of any palpable pelvic pathology and demonstrable extragenital cause.1

Thyroid dysfunction is also marked by large number of menstrual irregularities. Both hypo as well as hyperthyroidism are associated with delayed onset of puberty, anovulatory cycles and abnormally high foetal wastage.2 Clinical experiences show increased menstrual flow to be the most common reproductive system manifestation of hypothyroidism. Although the occurrence of menstrual disturbances in hypothyroid woman has been documented, the number of hypothyroid patients, originally requiring treatment for menorrhagia has not been carefully elicitated.3 Majority of the cases of subclinical hypo-thyroidism easily pass unrecognized. The prevalence of subclinical hypothyroidism is as high as 9.5% in women.4

MATERIAL AND METHODS

This study was carried out in the department of Obstetrics and Gynaecology, Index Medical Hospital And Reserch Center Indore, October 2012 to June 2014. 140 women with a provisional diagnosis of dysfunctional uterine bleeding from our hospital were selected for the study. Study Design Study Period : A prospective study : 18 Months (December 2012 to August 2014) Details Of The Study Inclusion Criteria All cases provisionally diagnosed to have dysfunctional uterine bleeding from puberty to premenopausal age groups. All patient having major complaint of menstrual disturbances e.g., menorrhagia, polymenorrhoea, polymenorrhagia, metropathia hemorrhagica, metrorrhagia, Oligo and hypomenorrhoea. 5 Exclusion Criteria Patients who are on Antithyroid drug or thyroid hormones, IUCD users, history of bleeding disorder will be excluded. Patients with organic lesions of genital tract. Procedure of Study A detailed history was obtained with special relevance to age, bleeding pattern. Onset, duration, amount of bleeding, complaints related to thyroid dysfunction was noted in detail. A thorough clinical examination including general physical examination, neck examination, gynaecological, and systemic examination was carried out, with special reference to thyroid dysfunction; in cases with a provisional clinical diagnosis of DUB. Patients having thyroid disease were excluded. All these patients were subjected to routine investigations like hemoglobin percentage, blood counts, urine examination for albumin, sugar, microscopy, bleeding time, clotting time, (to rule out coagulation defect) and USG Abdomen & peivis. Then all patients were subjected for T3, T4, TSH and TPOAb estimation in their sera. Investigations were estimated by Chemiluminescence Immuno Assay (C.L.I.A) method using reagent Monobind I N C; USA;Kit. with the help of fully automatic Alpha lite machine in Bio-chemical lab at Index. Drop of reagent monobind I N C mixed with collected blood and using special programming chart they place it in the fully automatic analyzing machine Alphalite, made in FRANCE. The following are noted. Patients are then grouped into 4 categories Euthyroid , Subclinical hypothyroid, Hypothyroid, Hyperthyroid Patients found to have thyroid dysfunction will be referred to physician for further management. Sample Size With incidence rate of DUB 10 percent, at 95 percent confidence interval and at ± 5 margin of error the worked out sample size is 138.

RESULTS

The following table describes the various distribution of patients according to their thyroid dysfunction in relation to their abnormal bleeding pattern. Patients who presented with menorrhagia have prevalence of 26% of thyroid dysfunction, this appears to be the most common bleeding pattern according to this study to be associated with thyroid disorders. Patients who presented with oligomenorrhoea had 18% prevalence of thyroid disorder. In the patient study, maximum patients belonged to the age group of more than 40 years, 45 patients accounting for 32%. - The most common bleeding patients seen among the 140 cases was menorrhagia. 44% of patients had menorrhagia. - The least common bleeding pattern (4%) was metrorrhagia.- Maximum patients in the study belongs to para 2 (33%) minimum were having parity of 4 or more (6%). 88% of patients who took part in the study had euthyroid status. 12% of patients from the present study were

noted to have thyroid dysfunction. Maximum patients diagnosed to have thyroid dysfunction had subclinical hypothyroidism (10 cases). 4% of the patients from the study had hypothyroidism. 1% had hyperthyroidism. Thyroid dysfunction was commonest in age group 31-40 and above 40 years. Patients who presented with menorrhagia had 44% prevalence of thyroid disorders. Hence this appears to be the most common bleeding pattern to be associated with thyroid disorder. Patients who presented with polymenorrhagia has 19.3% prevalence of thyroid disorders. The least common association is seen with patients with metrorrhagia, only 3.6% had thyroid disorders. In patients who were aged < 20 years, menorrhagia was the most common bleeding pattern (45%). In patients aged > 40 years, polymenorrhagia is the most common bleeding pattern (35.5%). Subclinical hypothyroidism was the most predominant thyroid dysfunction.

DISCUSSION

Maximum patients who had thyroid dysfunction presented with menorrhagia (26%). Out of 17 patients who had thyroid function disorder, 4 had abnormal T3 values, and 5 patient had abnormal T4 value. TSH appears to be the most sensitive test to evaluate thyroid function as it was abnormal in 97% of cases detected to have thyroid dysfunction

CONCLUSION

There is a high prevalence of thyroid disorders in cases which are clinically diagnosed as DUB. Hence the biochemical evaluation of T3, T4, TSH and TPO antibody is extremely important and valuable in detecting these patients. Anti-thyroid peroxidase autoantibodies (anti-TPO), considered as the most sensitive and specific marker of thyroid autoimmunity. The appearance of TPOAb usually precedes the development of thyroid dysfunction. In conclusion it can easily be stated that thyroid hormone irregularities predispose to various causes of Dysfunctional uterine bleeding.

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