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30	urnal or P	OR	IGINAL RESEARCH PAPER	Obstetrics and Gynecology		
Indian	PARIPEK	PREV DYS UTEI INDI	VALENCE AND PATTERNS OF THYROID FUNCTION IN WOMEN WITH ABNORMAL RINE BLEEDING IN URBAN SOUTHERN A.	KEY WORDS: Abnormal uterine bleeding, thyroid dysfunction, menorrhagia		
Priya Paari			Department of Obstetrics and Gynecology, ACS medical college, Poonamalle high road, Vellapanchavadi, Chennai-600077 - Corresponding author			
Sindhuja TP			Department of Obstetrics and Gynecology, ACS medical college, Poonamalle high road, Vellapanchavadi, Chennai-600077			
Shanthi Dhinakaran			Department of Obstetrics and Gynecology, ACS medical college,Poonamalle high road,Vellapanchavadi,Chennai-600077			
TRACT	The disorders of thyroid function have long been known to be associated with abnormal uterine bleeding (AUB). The prevalence and the type of thyroid dysfunction in urban Southern Indian population has been studied. The prevalance of various thyroid dysfunctional syndromes was found to be 25% in ALIB patients. Subclinical hypothyroidism was the most frequently encountered					

type of thyroid dysfunction in these patients.

Introduction

One of the important causes of abnormal uterine bleeding (AUB) is thyroid dysfunction of the affected women. The exact prevalence of the thyroid dysfunction in Indian women suffering from AUB is not well documented. Hence this study was done to determine the prevalence of thyroid dysfunction and the exact nature of the thyroid dysfunction in an urban South Indian women population.

Study design

The study was done in a tertiary referral hospital setting in Southern India. The patients presenting with history of AUB between Feb 2015 and March 2016 were included in the study. Careful history, physical examination (including detailed neck and pelvic examination), drug intake details, history of bleeding diathesis, detailed menstrual and pregnancy details were collected. All these patients underwent a complete hemogram, renal function test, liver function test, coagulation profile and ultrasonogram of the pelvis. Estimation of free T3, free T4, and TSH was carried out using Advia Centaur XL Siemens kit dedicated equipment using CLIA technique. Women on hormonal therapies, intra uterine contraceptive device, bleeding diathesis, pregnancy, known cancer or treatment for cancer and any other known organic pathology detected on ultrasonogram were excluded. One hundred and twenty of the patients with abnormal uterine bleeding who consented for the study were included. Based on the reference value advised by the immunoassay instrument vendors, the patients were divided into the following four categories: euthyroid, sub clinical hypothyroid, hypothyroid and hyperthyroid. By definition, oligo-, poly- and amenorrhoea concern the duration of menstrual cycle, while hypo-, hyper-menorrhoea and menorrhagia the amount of the menstrual flow. Thus, oligomenorrhoea was defined when the interval between 2 menstrual periods was greater than 35 days, polymenorrhoea, when less than 21 days and amenorrhoea, in women with previous normal menstrual periods, when there was no menstruation for more than 3 months (Speroff et al., Warren)^{1,2}. Hypo-menorrhoea was defined when there was more than 20% decrease in menstrual flow, hyper-menorrhoea when there was more than 20% increase in menstrual flow in comparison with the previous periods. Menorrhagia was defined as heavy menstrual bleeding. The prospectively maintained clinical database of these patients was analysed. The study was approved by the hospital ethics committee.

Results:

The distribution of the patients according to the age group and the menstrual ir-regularity is shown in table 1.

	No of	Age <	Age 21-	Age 31-	Age 41-
	patients	20 yrs	30 yrs	40 yrs	50 yrs
Menorrhagia	42	7	23	8	4
hypomenorrhea	6	0	4	1	1

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Acyclical	13	5	3	3	2
Metrorrhagia	4	0	2	1	1
Oligomenorrhea	12	0	5	3	4
Polymenorrhagia	29	17	4	4	4
Polymenorrhea	14	9	1	1	3
Total	120	38	42	21	19

Table 1. Age group wise distribution of the various types of menstrual ir-regularities is shown .

	No	eut	hypo	Sub-clinical	hype	Total
	of	hyr	thyr	hypothyroid	rthyr	dysthyroid
	cases	oid	oid		oid	(%)
Menorrhagia	42	28	6	8	0	14 (33.3%)
hypomenorrhea	6	6	0	0	0	0
Acyclical	13	11	1	1	0	2(10.5%)
Metrorrhagia	4	3	0	1	0	1 (25%)
Oligomenorrhea	12	10	0	0	2	2 (16.65)
Polymenorrhagia	29	22	3	4	0	7 (24.1%)
Polymenorrhea	14	10	2	2	0	4(28.5%)
Total	120	90	12	16	2	30 (25%)

Table 2. The various types of menstrual ir-regularities and the associated thyroid dysfunction types are shown.

Discussion:

It is long recognized that diseases of the thyroid gland in the premenopausal female are often associated with abnormalities of menstruation. Most textbooks on the subject describe amenorrhoea in patients with thyrotoxicosis and menorrhagia in patients with hypothyroidism, which is probably due to oestrogen breakthrough bleeding secondary to anovulation, a frequent finding in severe hypothyroidism (Hodges et al, Burrow, Thomas & Reid and Loncope)^{3,4,5,6}. Goldsmith et al⁷ found that 80% of patients with primary myxoedema had menstrual disturbances. Joschi et al⁸ noted that 68.2% of hypothyroid women had menstrual abnormalities, compared to 12.2% of healthy controls. As we see in our study, the commonest types of AUB happens to be polymenorrhagia and menorrhagia. The prevalence of thyroid function abnormalities in this patient population is 25%, which is quite significant. The pattern of menstrual abnormalities associated with the specific thyroid dysfunction were found to corelate well with the conventional teaching viz. low thyroid state (hypothyroid and sub clinical hypothyroid state) were associated with increased frequency and quantity of menstrual blood loss. Menorrhagia and polymenorrhagia were the most frequently seen patterns of AUB in these patients. Oligomenorrhea was the only abnormality detected in hyper thyroid patients, though majority of the oligomennorhic patients were euthyroid. As quarter of the patients being investigated for AUB have thyroid function abnormalities, it is essential that thyroid functional test be made a

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mandatory part of the work up of any patient with AUB. Its importance lies in the fact that, the thyroid function test is easily available, cheap and can lead to the discovery of a potentially curable cause of AUB. It goes without saying that the correction of the thyroid dysfunction has the potential to not only improve the AUB but also lead to improved quality of life for the patient and can stall/ reverse the end organ damage in other systems of the body as well.

References:

- Speroff, L., Glass, R.H. & Kase, N.G. (1983). Clinical gynecologic endocrinology and infertility.90,161–165.
- Warren, M.P. (1996) Evaluation of secondary amenorrhea. Journal of Clinical Endocrinology and Metabolism. 57,416–435.
- Hodges, R.E., Hamilton, H.E. & Keetel, W.C. (1952) Archives of Internal Medicine. Pregnancy in myxoedema. 12, 846–855.
 Burrow, G.N. (1986) The thyroid gland and reproduction. In Reproductive
- Burrow, G.N. (1986) The thyroid gland and reproduction. In Reproductive Endocrinology, 1986.100, 19–26.
 Thomas A.F. McKav, D.A. & Cultin, M.B. (1976) A monograph method for
- Thomas, A.E., McKay, D.A. & Cultip, M.B. (1976) A monograph method for assessing body weight. American Journal of Clinical Nutrition. 70,789–798.
 Longcope, C. (1996) The male and female reproductive systems in hypothyroidism.
- Werner and Ingbar's The Thyroid. In W.B. Saunders, Philadelphia. 389–515.
 Goldsmith, R.E., Sturgis, S.H., Lerman, J. & Stanbury, J.B. (1952) The menstrual
- pattern in thyroid disease. Journal of Clinical Endocrinology and Metabolism. 462–464.
- Joschi J. V., Bhandarkar, S.D., Chadha, M., Balaiah, D. & Shah, R. (1993) Menstrual irregularities and lactation failure may precede thyroid dysfunction or goitre. Journal of Postgraduate Medicine. 90,863–866.