Thyroid Dysfunction in Dysfunctional Uterine Bleeding

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Previous Article Reference: http://www.webmedcentral.com/article_view/2221
Article ID: WMC002235
Article Type: Original Articles
Submitted on: 22-Sep-2011, 01:51:04 PM GMT  Published on: 23-Sep-2011, 06:51:45 PM GMT
Article URL: http://www.webmedcentral.com/article_view/2235
Subject Categories: OBSTETRICS AND GYNAECOLOGY
Keywords: Thyroid dysfunction, Dysfunctional uterine bleeding

How to cite the article: Kaur T, Aseeja V, Sharma S. Thyroid Dysfunction in Dysfunctional Uterine Bleeding.
WebmedCentral OBSTETRICS AND GYNAECOLOGY 2011;2(9):WMC002235

Source(s) of Funding:
Nil

Competing Interests:
None
Thyroid Dysfunction in Dysfunctional Uterine Bleeding

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Abstract

Dysfunctional uterine bleeding is one of the most frequently encountered conditions in gynecology being principal diagnosis in at least 10% of all new outpatients both in hospital and private practice. The diagnosis depends upon exclusion of general and local disease. It is recognized universally that menstrual disturbances may accompany and even may precede thyroid dysfunction. In the present study thyroid status of patients presenting with dysfunctional uterine bleeding was assessed by TSH assay.

Introduction

Dysfunctional uterine bleeding is one of the most frequently encountered conditions in gynecology and is defined as abnormal bleeding from uterus in absence of organic disease of the genital tract. It is recognized universally that menstrual disturbances may accompany clinical alterations in thyroid function, and every clinician has encountered altered menstrual patterns among women suffering from hypothyroidism and hyperthyroidism. Both hypothyroidism and hyperthyroidism may result in menstrual disturbances. Hyperthyroidism reduces menstruation and hypothyroidism causes menorrhagia. Hyperthyroidism in contrast is associated with a menorrhagia and oligomenorrhea and the decrease in flow is proportional to the severity of the thyrotoxicosis.

Materials and Methods

For the purpose of study 100 premenopausal women with dysfunctional uterine bleeding were evaluated for their thyroid status by determining their serum Thyroid stimulating hormone (TSH) levels with the help of panthozone TSH assay. Patients with TSH level >7IU/ml were considered to have hypothyroidism and those with <0.4IU/ml were considered to have hyperthyroidism.

Observations:

Out of 100 patients studied, 14 had hypothyroidism, one patient had hyperthyroidism and rest 85 were euthyroid. Of 14 hypothyroid patients, 9 (64.3%) had menorrhagia, 3 (21.4%) had oligomenorrhea and one patient with hyperthyroidism was found to have hypermenorrhagia. Thyroid patients with TSH levels below 13.5µIU/ml had either menorrhagia or metrorrhagia, but as TSH rises up to 20µIU/ml oligomenorrhea was the chief complaint. 9 (64.3%) hypothyroid patients had proliferative endometrium, 3 (21.4%) had endometrial hyperplasia and rest 2 (14.3%) had secretory endometrium.

Discussion

Thyroid disorders are more common in women with menstrual irregularities as compared to general population. Both hypothyroidism and hyperthyroidism may result in menstrual disturbances. Scot and Mussey observed abnormal menstrual pattern in 56% of myxedematous patients. Menorrhagia and metrorrhagia alone or combined conteststituted abnormal pattern in 75% of patients. Wilansky et al showed a prevalence of 22% of early hypothyroidism by thyrotropin releasing hormone test in menorrhagic women, that is much higher than that found in general female population. Joschi et al showed 44% of the women with menstrual abnormality were apparently euthyroid. Menstrual irregularity was significantly more frequent in hypothyroidism or hyperthyroidism as compared to control cases and in more than 45% of cases this preceded the appearance of goiter or clinical sign and symptoms.

Our study too had apparently euthyroid patients none showing signs and symptoms of thyroid disease but with TSH assay 15 patients were found to have subclinical disease. Menstrual disturbance in thyrotoxicosis is two and half times more frequent than in normal general population. Our study showed menstrual irregularities to be significantly more frequent in patient with thyroid dysfunction concluding that systematic study of thyroid function in dysfunctional uterine bleeding is warranted. Goldsmith demonstrated a 70% occurrence of ovulatory failure in patients with hypothyroidism while...
20% had normal ovulation. 72.2% of patients with thyrotoxicosis had ovulatory cycles.(8) Our study showed 85.7% of hypothyroid patients had anovulatory cycles. 14.3% had ovulatory cycles. These studies show that thyroid disorder are more common in patients with dysfunctional uterine bleeding. Both hypothyroidism and hyperthyroidism may result in abnormal uterine bleeding. Thyroid function should be done in patients presenting with dysfunctional uterine bleeding.

Conclusion

The menstrual irregularities are significantly more frequent in patients with thyroid dysfunction and may precede thyroid dysfunction. Further systematic study of thyroid dysfunction in dysfunctional uterine bleeding is warranted.

References

Illustrations

Illustration 1

TABLE 1: DISTRIBUTION OF PATIENTS ACCORDING TO THYROID STATUS (n=100)

<table>
<thead>
<tr>
<th>Thyroid status</th>
<th>Number of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euthyroid</td>
<td>85</td>
<td>85.00</td>
</tr>
<tr>
<td>Hypothyroid</td>
<td>14</td>
<td>14.00</td>
</tr>
<tr>
<td>Hyperthyroid</td>
<td>1</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Illustration 2

TABLE 2: DISTRIBUTION OF PATIENTS ACCORDING TO THYROID STATUS IN RELATION TO TYPE OF BLEEDING

<table>
<thead>
<tr>
<th>Type of bleeding</th>
<th>Thyroid status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hypothyroid</td>
</tr>
<tr>
<td>Menorrhagia</td>
<td>9</td>
</tr>
<tr>
<td>Metrorrhagia</td>
<td>2</td>
</tr>
<tr>
<td>Oligomenorrhoea</td>
<td>3</td>
</tr>
<tr>
<td>Hypomenorrhoea</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
Illustration 3

**TABLE 3: DISTRIBUTION OF PATIENTS ACCORDING TO BLEEDING PATTERN IN RELATION TO TSH LEVELS (n=15)**

<table>
<thead>
<tr>
<th>Bleeding pattern</th>
<th>TSH level</th>
<th>Thyroid status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menorrhagia</td>
<td>9.0-13.5</td>
<td>Hypothyroid</td>
<td>8</td>
</tr>
<tr>
<td>Metrorrhagia</td>
<td>7.9-9.2</td>
<td>Hypothyroid</td>
<td>2</td>
</tr>
<tr>
<td>Oligomenorrhoea</td>
<td>15.6-20.0</td>
<td>Hypothyroid</td>
<td>3</td>
</tr>
<tr>
<td>Hypomenorrhoea</td>
<td>0.2</td>
<td>Hypothyroid</td>
<td>1</td>
</tr>
</tbody>
</table>
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