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Evaluation of Endometrial Hyperplasia Frequency in Salahudeen Province during (2003-2013)

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ABSTRACT

Background The proliferation of glands of irregular size and shape with an increase in stroma/ glands ratio is defined as endometrial hyperplasia. Most of the cases is thought to be the result of persistent prolong estrogen stimulation. The aim was to determine the number of women with endometrial hyperplasia in Salahuddin province during the period (2003-2013), and to identify a number of factors associated with increase incidence of endometrial hyperplasia..

Patients & Methods: The study included 319 cases with endometrial hyperplasia and abnormal uterine bleeding. patients ages ranged (15-66 years and over). Sample collection and patients information were made through a survey of all available information in the hospital records in Tikrit Teaching Hospital during September 2013 to the end of February 2014. A questionnaire for data collection was prepared also. During the above time, information, about 50 new cases were also collected from hospital and some private clinics and laboratories.

The Results: The highest age groups with endometrial hyperplasia were the age group (36-45) with a percentage of 28.2%. Women in the city were more prone to endometrial hyperplasia than country side women by 57.1%. High percentage of bleeding time was observed to be 20 days.

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Introduction

Endometrial hyperplasia is defined as proliferation of glands of irregular size and shape with an increase in stroma/ glands ratio, and usually occurs after menopause when ovulation stops and progesterone is no longer made, it can also occur during perimenopause, when ovulation may not occur regularly [1].

Endometrial hyperplasia is a relatively common gynecological condition that affects women of all age groups, with the majority of cases presenting with abnormal uterine bleeding [1].

Most Endometrial hyperplasia is thought to be the result of persistent, prolong estrogen stimulation of endometrium [2]. On the basis of estrogen excess, the condition which may lead to endometrial hyperplasia include, obesity, nulliparity, anovulation, late menopause, Stein-Leventha Syndrome, estrogen ovarian tumors (granulose and theca cell tumors), in addition to exogenous estrogen stimulation through hormone replacement [3].

The aim of the work was to find out in a retrospective study the endometrial hyperplasia among women with abnormal uterine bleeding in Salahuddin province during the period (2003-2013).

Patients & Methods

Cross section study belong to 319 women in Salahuddin province during the period 2003-2013 attended to Tikrit Teaching Hospital and some private laboratories for histopathological examination for dilation and curettage, endometrial biopsy and hysterectomy. The inclusion criteria included those women who were complaining of abnormal uterine bleeding. The exclusion criteria was depending on the aim of curettage and so. Patients in which endometrial biopsy was performed to assess the state of ovulation (not for menorrhagia). Cases with inadequate sampling or autolyzed tissue were excluded.

Age groups, weights, geographical distribution, social status, economic state, duration of bleeding and associated diseases were included.

Results and Discussion

Endometrial hyperplasia was the commonest histopathological findings revealed in the study samples. The diagnosis of this condition is important because it carries a malignant potential and causing symptoms of irregular or prolonged bleeding due to anovulatory cycles in majority of cases, although this could be variable

according to the type of hyperplasia [4].

Age groups:

All patients with endometrial hyperplasia have an age ranged (15-66) years and over, with a mean of 45 years.

Table (1) shows age groups distribution. The highest frequency was the age group (36-45). This frequency included 90 patients (28.2%). This was followed by the age group (45-55) with frequency of 69 (21.6%), and then the age group (26-35) with a percentage of (19.4%). The age group (15-25) (13.2%) followed by age group 56-65 (11.3%). The age group 66 years and over included 20 patients only (6.3%). This was much less than the study registered by Amera, et.al (2009), where they reported on age group of 45-48 with a percentage of 66.6% [5].

The reason of this difference is related to that, women age is one of the important factors in assessing the status of endometrial hyperplasia and hormonal changes.The age group (45-55) years have access to the menopause period and due to high estrogen, leads to increase occurrence of endometrial hyperplasia. There was no significant variation at ($p \leq 0.05$) between age group and endometrial hyperplasia occurrence. This is because of that, endometrial hyperplasia can occur in all age groups [6].

Table -1- patient's age groups with endometrial hyperplasia, frequency and percentages.

Age groups (years)	Frequency	Percentage
15-25	42	13.2
26-35	62	19.4
36-45	90	28.2
46-55	69	21.6
56-65	36	11.3
≥ 66	20	6.3
Total	319	100.0

Geographical distribution:

Table (2) shows the occurrence of endometrial hyperplasia in the city and over the country side.

Table -2- Geographical distribution of women with endometrial hyperplasia

Residency	Frequency	Percentage %
City	37	42.9%
Country side	97	57.1%
Total	140	100%

City dwellers are more likely subjected to environmental pollutants, due to the large number of factories and congestion and abundance of petrol stations, and the large wheels and others, as emit chemicals be the cause of chemical pollution. (7).

This is due to increased opportunities for city dwellers to exposed to various factors as, stress, primarily and basically to the factors derived from large number of polluting factories and petrol stations and its proximity to city center, which is originally is a densely populated and suffer a decline in living standards and food. (8)

Socio- status:

Table (3) clarify the distribution of women with endometrial hyperplasia. This shows that, married women are more susceptible than unmarried. This is due to that married women are prone to endometrial hyperplasia and to the changes of the reproductive tract during pregnancy and child bearing and inflammations. (9).

Also Iglesis, et.al; (2011) are in agreement with the previous statement and explanation, they focused on that, married women are more likely to have endometrial hyperplasia, because the hormonal balance shifts towards more progesterone during pregnancy. So having many pregnancies help towards having endometrial hyperplasia.

Women who have never been pregnant have a higher risk specially if they are infertile (10). Other studies have proven that, menopaused and interrupted menstrual cycle women have an increase occurrence of endometrial hyperplasia because both married and unmarried women are exposed to estrogen increase and progesterone decrease levels, and this lead towards the increase in endometrial lining thickness. (11).

Table -3-: Distribution and percentages of women with endometrial hyperplasia according to social status.

Social status	Frequency	Percentage %
Married	269	84.3%
Unmarried	50	15.7%
Total	319	100.0%

Economic status:

Women living in different economic status have different ratio of endometrial hyperplasia. This is obvious in table (4), which show these variations. No previous studies have mentioned any relation between economic status and the occurrence of endometrial hyperplasia, because women living in poor, middle and good economic levels are not able to periodic inspection and knowledge of the situation before it develops, and also because of lack of ability to deal with the difficult condition and treatments and follow up, because of the coasts. While women living in very good economic level can easily follow up and treat herself as soon as possible.

Table -4-: Distribution of women with endometrial hyperplasia with different economic level.

Economic status	Frequency	Percentage
Poor	33	10.3%
Middle	143	44.8%
Good	132	41.4%
Very good	11	3.4
Total	319	100.0%

Bleeding duration of women with Endometrial Hyperplasia:

Abnormal vaginal bleeding is one of the most common gynecological complains in women looking for health care regardless of age. Among the 319 cases, only 25 women have the bleeding duration of 30-35 days. While all other women have a bleeding duration of less than one month. Out of the 319 women included in the present study, the higher number of women with endometrial hyperplasia. was with 37 (a percentage of 11.6) were with 20 days of bleeding. Table (5) shows these values. Dubinsky (2004) mentioned that abnormal bleeding may have some complications can affect life quality.

Table -5-: Bleeding duration (days) among endometrial hyperplasia patients.

Duration (days)	Frequency	Percentage%
2	1	0.3
10	21	6.6
11	11	3.4
12	18	5.6
13	17	5.3
14	13	4.1
15	36	11.3
16	18	5.6
17	18	5.6
18	27	8.5
19	7	2.2
20	37	11.6
21	11	3.4
22	16	5.0
23	17	5.3
24	6	1.9
25	11	3.4
26	3	0.9
27	2	0.6
28	2	0.6
29	2	0.6
30	12	3.8
32	5	1.6
33	6	1.9
34	1	0.3
35	1	0.3
Total	319	100.0

Adil (1997) conducted a two years study of dilation and curettage in excessive and abnormal uterine bleeding and showed that bleeding was continue by month with a percentage of 66.6%, and this result was also agreed with the studies of Livingstone (1978) and Bhatla (2001). A study of Mughal (1997) on diagnostic curettage in cases of abnormal bleeding, among 114 patients, 51 patients were with endometrial hyperplasia. Roy et.al (2013) included 64 premenopausal women who were complaining of abnormal bleeding, 50 of them were with endometrial hyperplasia.

Finally, it can be concluded that the occurrence of endometrial hyperplasia is multi-factorial and does not depends on one single factor.

Conclusion

Women in the city were more prone to endometrial hyperplasia than country side women by 57.1%. High percentage of bleeding time was observed to be 20 days.

Recommendation

The following recommendations can be made from the results of the present study:

1. Evaluation of endometrial hyperplasia should be carried out regularly in various parts of the country.
2. Study the comparison between the city and country sides are also required.
3. Results comparison between the various area is needed in order to see or to visualize the affecting factors either in increasing or decreasing the cases.

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