

CYTOHORMONAL STUDIES IN PERIMENOPAUSAL WOMEN

(A Study of 75 hysterectomised cases)

by

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The perimenopausal period is a transitional phase, which bridges the gap between the normal reproductive life characterised by ovulation and menstruation and the complete cessation of this function. As ovulation and menstruation are dependent on regular rhythmic variation of hormonal activity during the reproductive period, it is expected that profound alterations are bound to occur during the perimenopausal period. A large number of women complain of irregular and excessive bleeding during this period. Usually this bleeding is considered as a true hormonal dysfunction and is not associated with any pelvic pathology. This study was carried out to see the number of associated lesions in the perimenopausal hysterectomy specimens and thus to evaluate the number of cases where irregular bleeding may not be a pure hormonal dysfunction, but could be attributed to the associated lesions also.

Material and Methods

Seventy-five patients in the age group

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of 40-45 years, who were admitted for hysterectomy are included in this study. Vaginal smears of these patients were obtained 24 hours prior to the operation. These patients were divided into premenopausal and postmenopausal groups and further each group was subclassified into asymptomatic and symptomatic, depending on whether they had hysterectomy for prolapse uterus or for uterine bleeding.

Observations

In the premenopausal symptomatic group, 33 hysterectomy specimens were available; of these 26 showed associated lesions, 17 cases had leiomyomata, 4 adenomyosis and 1 endometrial polyp. Adenomyosis in conjunction with leiomyomata was seen in another four cases of the 14 cases in the premenopausal asymptomatic group, one showed a seedling intramural leiomyoma. In the postmenopausal symptomatic group, of a total of 7 cases studied, 3 showed associated lesions comprising of 1 adenomyosis and 2 leiomyomata. In the post-menopausal asymptomatic group, 21 cases were studied. Five of them showed associated lesions comprising 3 adenomyosis and 2 leiomyomata (Table I).

Cytohormonal evaluation in cases with associated lesions showed a higher

TABLE I
Associated Lesions in 75 Hysterectomy Specimens

	No. of specimens	No. of cases with associated lesions	Leio-myomata	Adeno-myosis	Adeno-myosis with leio-myomata	Endometrial polyp.
Premenopausal group						
Asymp.	14	1	1	—	—	—
Symp.	33	26	17	4	4	1
Postmenopausal group						
Asymp.	21	5	2	3	—	—
Symp.	7	3	2	1	—	—

superficial maturation than in those without associated lesions (Table II)

TABLE II
Mean Maturation Index in Cases With and Without Associated Lesions

	Mean M.I. in pts. with Ass: lesions	Mean M.I. in cases without Ass: lesions
Premenopausal		
Asymp.	0/5/95	0/49/51
Symp.	1/39/61	0/48/52
Postmenopausal		
Asymp.	0/42/58	2/56/42
Symp.	1/40/59	4/47/49

In the premenopausal symptomatic group, out of 26 patients with associated lesions, 15 showed smears with superficial maturation, 5 with intermediate maturation; 6 showed inflammatory smears and could not be evaluated for hormonal activity. In the premenopausal asymptomatic group, only 1 case had a seedling leiomyoma and this case showed a smear with preponderance of superficial cells. In the symptomatic postmenopausal group, cyto hormonal evaluation revealed superficial maturation in 1 patient and intermediate maturation in another. One case had an inflammatory smear. In the asymptomatic postmenopausal group, 3 patients showed smears with superficial maturation and 2 showed an intermediate maturation.

The mean maturation index in patients

TABLE III
Cyto hormonal Evaluation in Cases With Associated Lesions

	No. of pts. with ass: lesions	Superficial maturation	Intermediate maturation	Inflammatory smear
Premenopausal				
Symp.	26	15	5	6
Asymp.	1	1	—	—
Postmenopausal				
Symp.	3	1	1	1
Asymp.	5	3	—	2

having leiomyomata, adenomyosis, adenomyosis with leiomyomata and endometrial polyp is shown in Table IV.

specimens in the premenopausal age group has revealed a large number of associated lesions in the symptomatic

TABLE IV
Mean M.I. in Cases With Associated Lesions

	Leiomyoma	Adenomyosis	Adenomyosis + leiomyomata	Endometrial polyp.
Premenopausal	0/33/67	2/65/33	1/36/63	0/20/80
Postmenopausal	1/36/63	1/73/26	—	—

Discussion

In the symptomatic premenopausal group, associated lesions have been encountered in 26 out of 33 patients, 9 of these were clinically suspected. Benson and Sneed (1958) found an incidence of 21.4% of adenomyosis in cases of dysfunctional bleeding. Joshi and Deshpande (1964) observed adenomyosis in 14.4% cases in the hysterectomy specimens. Ghosh and Sengupta (1968) found 33 associated lesions out of 50 hysterectomy specimens available in cases of functional bleeding. In their series leiomyomata were seen in 10 cases adenomyosis in 15 and adenomyosis with leiomyomata in 8 cases. They had included cases of 8-10 week size uterus, as they felt that it was difficult to decide clinically whether associated lesions were present in cases with mild enlargement of uterus. The large number of associated lesions encountered in our study also indicates that it is not always possible to suspect these associated lesions on clinical examination.

Associated lesions have been encountered in 25% of the asymptomatic postmenopausal women in our study. This is in close proximity to the 21% of adenomyosis reported by Speert (1949) in asymptomatic postmenopausal women.

Conclusion

1. Our study of 33 hysterectomised

group, most of which had not been suspected clinically.

2. In the postmenopausal group, associated lesions have been encountered in both asymptomatic and symptomatic cases.

3. Cytohormonal evaluation has revealed a higher superficial maturation index in patients with associated leiomyomata but an intermediate maturation in adenomyosis.

4. This study brings out that a maturation index particularly in the premenopausal age group may be of extreme value in preventing injudicious treatment with oestrogens.

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