ORIGINAL RESEARCH

Assessment of Physiologic Breakdown Masking Significant Pathology in Endometrial Biopsies

[1]Dr. Vandana Arora, [2]Dr. Sweety Swaroop

[1]Professor, Department of Pathology, Gold Field Institute of Medical Sciences, Faridabad, Haryana, India;
[2]Associate Professor, Department of Obstetrics & Gynaecology, Gold Field Institute of Medical Sciences, Faridabad, Haryana, India

Corresponding Author
Dr. Sweety Swaroop
Associate Professor, Department of Obstetrics & Gynaecology, Gold Field Institute of Medical Sciences, Faridabad, Haryana, India

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ABSTRACT

Background: This study was conducted to assess whether Physiologic Breakdown Mask Significant Pathology in Endometrial Biopsies. **Material and methods**: 200 patients who were diagnosed with either "menstrual" or "extensive breakdown" were included in this study. Patients in the "extensive breakdown" and "menstrual" groups were removed if they were younger than 40 or 50 years old, respectively, in order to increase the population's likelihood of having substantial endometrial disease. The original hematoxylin-eosin-stained histologic slides from the initial and follow-up biopsies, as well as the reports, were examined by the authors. If the pathology follow-up revealed cancer or hyperplasia of any kind, it was deemed noteworthy. The 6-month period was chosen to make sure that the pathology seen on the second test was not anything that was overlooked on the biopsy specimen that was initially presented, but rather an indication of a different process. In total, 100 instances were selected based on their meeting of inclusion criteria.**Results**: In this study, out of 100 subjects, 21 belonged to the age group of 40 years, 23 belonged to the 41-45 years group, 36 subjects aged between 46-50 years and the remaining 20 belonged to the age group of 51-55 years. The majority of the diagnoses made on the initial biopsy specimens were descriptive: menstrual (56 cases), secretory, inactive, or proliferative (23 cases), and altered/disordered endometrium (2 cases) were all described. Nineteen women had specific benign diagnoses, such as nine endometrial polyps, five leiomyomas, and five chronic endometritis cases. **Conclusion**: Extensive breakdown or menstrual-pattern endometrium might conceal some other benign conditions, although cancer is rarely concealed by these conditions.

Keywords: endometrium, extensive breakdown, menstrual, polyp, leiomyoma.

INTRODUCTION

In many histopathology laboratories, endometrial specimens account for a major proportion of the workload. Most specimens are taken because of abnormal uterine bleeding or other related symptoms, and the pathologist is expected to exclude an endometrial cancer or a precancerous lesion. In some cases, a benign cause for abnormal uterine bleeding is identified, such as endometritis or endometrial polyp.[1]

In evaluating an endometrial biopsy specimen, an adequate clinical history is important, including the age of the patient and the reason for the biopsy. The menopausal status as well as the date of onset of the last menstrual period and the length of the menstrual cycle in premenopausal women should be provided. In many cases of postmenopausal bleeding, the patient is not actually postmenopausal but rather is perimenopausal, with a prolonged interval between periods. This results in the clinician and the patient assuming that the woman is postmenopausal. Before biopsy, many women with abnormal uterine bleeding are already taking exogenous hormones, especially progestogenic compounds, to control the bleeding, and this information is not always conveyed to the pathologist. Other women may be taking hormone replacement therapy or contraceptives. These hormonal compounds may alter the morphological appearance of the endometrium and a knowledge that these, and other relevant drugs such as tamoxifen, are being taken is of paramount importance to the pathologist.[1]

Perimenopausal bleeding is related to unstable and reducing ovarian function. As women approach menopause, an increasing variability of the menstrual

pattern is observed. This may make the detection of underlying endometrial pathology particularly challenging in this age group. Endometrial assessment is indicated above the age of 40 years to exclude endometrial hyperplasia or carcinoma.[2,3] Less than 1% of endometrial carcinomas occur under 35 years of age and 6% in those 45 years or less.[4,5]Hence, this study was conducted to assess whether Physiologic Breakdown Mask Significant Pathology in Endometrial Biopsies.

MATERIAL AND METHODS

200 patients who were diagnosed with either "menstrual" or "extensive breakdown" were included in this study. Patients in the "extensive breakdown" and "menstrual" groups were removed if they were younger than 40 or 50 years old, respectively, in order to increase the population's likelihood of having substantial endometrial disease. The original hematoxylin-eosin-stained histologic slides from the initial and follow-up biopsies, as well as the reports, were examined by the authors. If the pathology follow-up revealed cancer or hyperplasia of any kind, it was deemed noteworthy. The 6-month period was chosen to make sure that the pathology seen on the second test was not anything that was overlooked on the biopsy specimen that was initially presented, but rather an indication of a different process. In total, 100 instances were selected based on their meeting of inclusion criteria.

RESULTS

Out of 100 subjects, 21 belonged to the age group of 40 years, 23 belonged to the 41-45 years group, 36 subjects aged between 46-50 years and the remaining 20 belonged to the age group of 51-55 years.The majority of the diagnoses made on the initial biopsy specimens were descriptive: menstrual (56 cases), secretory, inactive, or proliferative (23 cases), and altered/disordered endometrium (2 cases) were all described. Nineteen women had specific benign diagnoses, such as nine endometrial polyps, five leiomyomas, and five chronic endometritis cases.

Table 1: Age-wise distribution of subjects

Age (Years)	Number of women
40	21
41-45	23
46-50	36
51-55	20

Table 2: Evaluation of endometrium

Type of endometrium	Number of cases
Menstrual	56
Secretory, Invasive or Proliferative	23
Disordered	02
Leiomyoma	05
Endometrial polyp	09
Chronic endometritis	05

DISCUSSION

Endometrial sampling for histopathology is very important in evaluation of perimenopausal bleeding. Until recently, the standard method of endometrial assessment was by dilatation and curettage. It requires general anesthesia and has complications such as uterine perforation, hemorrhage and infection. It obtains tissue from less than 50% of the uterine cavity in 60% of procedures.[3,6,7] The concept of office endometrial sampling has gained wide acceptance as there is no need for general anesthesia or elaborate equipment.In 2010, Bhosale and Fonseca conducted a retrospective study of 112 perimenopausal women with abnormal uterine bleeding in the age group of 40 - 52 years for a period of 6 months and reported that 78.6% belonged to age group of 40 - 49 years.[8]Hence, this study was conducted to assess whether Physiologic Breakdown Mask Significant Pathology in Endometrial Biopsies.

In this study, out of 100 subjects, 21 belonged to the age group of 40 years, 23 belonged to the 41-45 years group, 36 subjects aged between 46-50 years and the remaining 20 belonged to the age group of 51-55 years. The majority of the diagnoses made on the initial biopsy specimens were descriptive: menstrual (56 cases), secretory, inactive, or proliferative (23 cases), and altered/disordered endometrium (2 cases) were all described. Nineteen women had specific benign diagnoses, such as nine endometrial polyps, five leiomyomas, and five chronic endometritis cases.Muzzafar et al[9] in 2005 conducted a retrospective analysis of 260 endometrial curettings to study various histopathological features in women aged 21 - 50 years with excessive blood loss and correlate them with clinical presentations. He found majority of them (48.1%) belonged to 41 - 50 years and the most common endometrial pathology detected was endometrial hyperplasia (24.7%).Sarwar and Haque[10] in 2005 studied 50 women with abnormal uterine bleeding to compare the type and frequencies of pathologies in endometrial curettings and reported 2% incidence of endometrial carcinoma. Giannone R et al[11] in their study carried out the evaluation of endometrial biopsy performed between June 1986 and June 1989 in the Obstetric and Gynaecologic Department of Casorate Primo Hospital in fertile, perimenopausal and post-menopausal patients with uterine bleeding. The results showed that on a total amount of 459 cases they registered 78 cases of initial abortions, 3 vesicular mola, 300 dysfunctional bleeding, 63 precancerous situations and 15 endometrial cancers. They confirmed the diagnostic and prognostic validity of endometrial biopsy carried out with fractional curettage. The opportunity to prevent and diagnose precancerous pathology through a multiple screening was also estimated.

CONCLUSION

Extensive breakdown or menstrual-pattern endometrium might conceal some other benign

conditions, although cancer is rarely concealed by these conditions.

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