

## HYSTEROSCOPIC VIEW OF ENDOMETRIAL HYPERPLASIA

Mojgan Barati<sup>1</sup>, Sara Masihi,<sup>2</sup> Farideh Moramezi<sup>3</sup>

### ABSTRACT

**Objective:** To determine the hysteroscopic appearance of endometrial hyperplasia in women with subsequently confirmed diagnosis of endometrial hyperplasia.

**Methodology:** This study was done in Aria Hospital in Ahwaz, Iran from January 21, 2003 to May 24<sup>th</sup> 2005. Fifty women underwent hysteroscopy with eye direct biopsy of the endometrium. Cause of hysteroscopy was Abnormal Uterine Bleeding (AUB) in 93.5% of cases. Specimens were sent for histology assessment. From these patients five cases had pathologic diagnosis of endometrial hyperplasia. Hysteroscopic features of these five cases were reviewed.

**Results:** In case one which was simple cystic hyperplasia, there was obvious cystic bizarre view. In case two, three and four there were minimal hysteroscopic abnormal view. In case 5 which was endometrial hyperplasia with atypia, there were obvious white endometrial elevations in the endometrial lining.

**Conclusions:** Endometrial hyperplasia may produce obvious space occupying lesions in which diagnosis is easy with hysteroscopy, but it may be not very obvious especially in early stages of the disease. In all these 5 cases there were white areas with markedly reduced or absent vascularity.

**KEY WORDS:** Hysteroscopy, Endometrial hyperplasia, White lesion.

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### INTRODUCTION

Endometrial hyperplasia may be a precursor to the most common female genital malignancy, endometrial carcinoma. Unopposed estrogens from anovulatory cycles and exogenous use in postmenopausal women have been shown to increase the likelihood of endometrial hyperplasia and endometrial carcinoma.<sup>1-4</sup> Progression of endometrial hyperplasia to more aggressive pathology is time related. Simple hyperplasia often regresses if the source

of exogenous estrogen is removed. However, atypical hyperplasia often progresses to adenocarcinoma unless medical intervention occurs.<sup>5</sup> Less than 2% of hyperplasias without atypia progress to carcinoma, and the mean duration of progression to carcinoma take almost 10 years. Atypical hyperplasia progresses to carcinoma in 23% of cases over a mean duration of four years.<sup>6</sup> Postmenopausal patients with endometrial hyperplasia invariably present with vaginal bleeding. Although carcinoma must be considered in this age group, endometrial atrophy represents the most common cause of postmenopausal bleeding. In a study of 226 women with postmenopausal bleeding, 7% were found to have carcinoma, 56% were noted to have atrophy, and 15% were diagnosed with some form of hyperplasia.<sup>7</sup> Hyperplasia and carcinoma may present with heavy vaginal bleeding, whereas patients with atrophy usually present with light spotting.<sup>8</sup> Meta analyses restricted to postmenopausal women

1. Dr. Mojgan Barati MD,

2. Dr. Sara Masihi MD,

3. Dr. Farideh Moramezi MD,

1-3: Ahwaz University of Medical Science,  
Ob&Gyn ward/ Emam Khomani Hospital/ 24 metry  
Ahwaz - Iran.

Correspondence

Dr. Mojgan Barati,

E-Mail: brati\_m@yahoo.com

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with abnormal bleeding show that a positive test result following hysteroscopy is more useful for predicting endometrial cancer or hyperplasia disease than TVS.<sup>9</sup> In contrast, a negative test result following Trans Vaginal Ultrasound (TVS) in postmenopausal women (4 or 5 mm cut-off to define abnormality) is highly accurate in excluding serious endometrial disease and more useful than hysteroscopy in this context.<sup>10,11</sup> Applying the accuracy estimates from all three TVS reviews<sup>10-12</sup> assuming a 5% pretest probability of cancer and endometrial thickness cut-offs of 4 or 5mm, the positive probability of cancer following a negative TVS is between 0.4 and 0.8%. The corresponding probability of cancer is 80% following a positive hysteroscopy.<sup>9</sup> Endometrial thickness measurement using ultrasound is of minimal use in premenopausal women because specific cut-off levels or morphological features do not accurately define the presence or absence of endometrial hyperplasia or cancer.<sup>13</sup> Outpatient endometrial biopsy has high accuracy in diagnosing endometrial cancer and hyperplasia and should be employed when serious endometrial disease is suspected in both pre and postmenopausal women.<sup>9</sup> For many years dilatation and curettage (D&C) under general anesthesia was considered the gold standard for determining the cause of abnormal uterine bleeding.<sup>14</sup> Less-invasive outpatients' methods, such as Vabra and Pipelle, have similar or worse diagnostic accuracy, due to blind endometrial sampling.<sup>15</sup> At the beginning of the 1990s, transvaginal sonography greatly improved the accuracy of evaluations of endometrial morphology, whereas in the last 10 years hysteroscopy has become, in some hospitals, the gold standard procedure for evaluating the uterine cavity, particularly if performed in an office setting and if associated with eye-guided biopsies.<sup>15-22</sup> Hysteroscopy without endometrial biopsy is unreliable in differentiating between pre-malignant and malignant disease in the uterine cavity,<sup>23</sup> although if the cavity is clearly atrophic it may be possible to omit endometrial sampling.<sup>24</sup> Endometrial cancer may be found in symptomatic and asymptomatic women with an essentially atrophic or focally

hyperplastic endometrium,<sup>25,26</sup> which cannot be detected by ultrasound.

In this study, we tried to describe hysteroscopic features of endometrial hyperplasia.

## PATIENTS AND METHODS

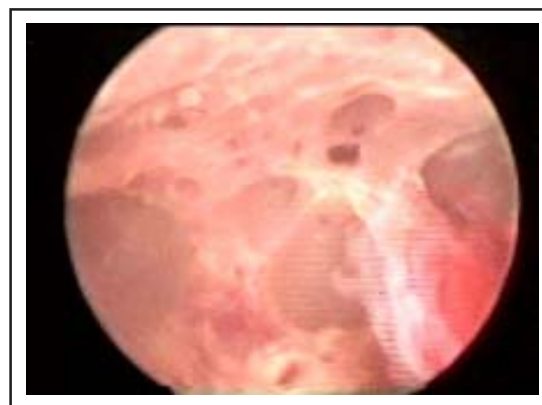
This study was done in Aria Hospital in Ahvaz, Iran from January 21, 2003 to May 24, 2005. In all fifty women underwent hysteroscopy. Cause of hysteroscopy was AUB, pain, asymptomatic and miscellaneous. Hysteroscopy directed biopsies were taken and specimens were sent for pathologic assessment. From these patients five cases had pathologic diagnosis of endometrial hyperplasia. Hysteroscopic features of these five cases were reviewed repeatedly.

## RESULTS

In case one which was simple cystic hyperplasia, there was obvious cystic bizarre view. Panoramic view of endometrial cavity was distorted. Back to back areas of cystic figures in endometrium were seen. These cystic figures have white color.

In case two and three there were white suspicious lesions especially near cornea. Panoramic views were not distorted. Pathology report was hyperplasia without atypia in these two cases.

In case four, endometrium had atrophic appearance, panoramic view was not distorted. There was no suspicious area but now that we know the pathology report, near the cornea in fundal area there is diffuse white area. Pathology report was hyperplasia without atypia.



Case-1: simple cystic hyperplasia.



Case-2: Simple hyperplasia without atypia

In case five which was endometrial hyperplasia with atypia, there were obvious white endometrial elevations. These elevations were friable and shiny white.

### DISCUSSION

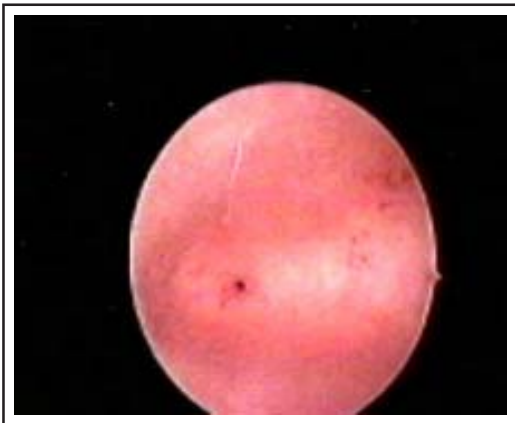
Endometrial hyperplasia may produce obvious intracavitary lesions which can be seen on hysteroscopy. These obvious intracavitary lesions are white, friable and little or no vessels are seen on them. These lesions may distort panoramic view of endometrial cavity. Also endometrial hyperplasia may exist in spite of little or no obvious endometrial lesions in hysteroscopy. It is doubtless that under direct eye vision, diagnosis of obvious space occupying lesions and taking biopsy is easy as in case one and five. In case two and three there were suspicious lesions near cornea. It seems that hyperplasia appears first in cornea. But one of



Case-3: Simple hyperplasia without atypia

the pit falls of hysteroscopy is pathologic diagnosis of hyperplasia in patients which hysteroscopic views were not having obvious lesions as in case four. So it is better to take biopsy in spite of normal hysteroscopic view.

In Rivierenland Hospital of Netherlands, de Wit AC, Vleugels MP, de Kruif JH performed 1045 diagnostic hysteroscopic procedures throughout six consecutive years, focusing on its value in diagnosing endometrial hyperplasia and carcinoma. They concluded that diagnostic hysteroscopy is a valuable diagnostic tool in diagnosing structural intra-cavitary pathology, for the outpatient clinic. The value in diagnosing hyperplasia or endometrial carcinoma is limited and even after guided biopsy a malignancy cannot be ruled out.<sup>27</sup> G.Benagiano from Switzerland and L.Mencaglia from Italy have reported that there is no specific appearance for each histo-



Case-4: Simple hyperplasia without atypia



Case-5: Endometrial hyperplasia with atypia

logical type of endometrial hyperplasia. The hysteroscopic appearance of low risk endometrial hyperplasia (EH) includes an increase in the thickness of the endometrium, its dyshomogeneous regeneration, increased vascularization and the presence of ciliated images, cystic dilatation, increased bleeding, polypoid formation, necrotic zones and the concentration and irregular arrangement of the glandular openings. In its initial stages, endometrial cancer shows a papillary appearance with irregular polylobate excrescences which are friable and partly necrotic or haemorrhagic. Vascularization is irregular and anarchic. Often there is a clear dividing line between cancerous and normal endometrium. Neoplastic lesions can be focal and localized at the tubal cornea.<sup>28</sup> Overall, endometrial hyperplasia may produce obvious space occupying lesions in which diagnosis is easy with hysteroscopy, but it may not be very obvious especially in early stages of the disease. For determining hysteroscopic characteristics of these hidden hyperplasias more studies are necessary. However the final diagnosis of exact pathology depend on histopathology examination.

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