ANNALS OF THE UNIVERSITY OF CRAIOVA

Series: ✓*Biology*
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✓*Environmental engineering*

Vol. XXX (LXVI) - 2025

CLINICAL AND MORPHOLOGICAL ASPECTS IN A CASE OF ENDOMETRIAL POLYP

Olimid Diana[1]*

[1*]University of Craiova, Favulty of Horticulture, Craiova.
* *Correspondence author. E-mail*: olimiddiana@yahoo.com

Keywords*: ultrasound, endometrium, metrorrhagia, polyps*

ABSTRACT

The subject of this paper is the presentation of a case of uterine bleeding, that occurred on day 20 of the menstrual cycle, in a 30-year-old woman who was examined clinically, ultrasound and with laboratory tests. Transvaginal ultrasound examination revealed the existence of an endometrial polyp. Because the bleeding was very profuse, blind uterine curretage was performed, for hemostatic and biopsy purposes. Histopathological examination of endometrial fragments confirmed polypoid transformation of the uterine mucoasa. The metrorrhagia was complicated by the association with anemia, the patient having a poor nutritional status, and a urinary infection with Escherichia Coli.

INTRODUCTION

The endometrial polyps are hyperplastic growths consisting of dense fibrous tissue or smooth muscle with disorganized endometrial glands. Polyps can be asymptomatic or cause dysfunctional uterine bleeding in premenopausal women and account for up to 30 % of postmenopausal bleeding (Clark & Stevenson 2017, Heremans et al. 2022).

The etiology of uterine polyps is elusive, and several theories have been proposed, including genetic, hormonal or inflammatory factors (Indraccola et al., 2013, Munro 2019, Kossai & Renault-Llorca 2020).

Some studies have attempted to correlate the occurrence of endometrial polyps with 25-OH-vitamin D deficiency and Human Papilloma Virus infection, but the results have been inconclusive (Zhou et al. 2024, Nazari et al. 2024).

Polyps may spontaneously resolve, especially when they are smaller than 1 cm. They are multiple în 20 % of cases, and are reporter to range from 1 mm to a few centimeters in size. Large size is defined as greather than 1 cm (Leone et al 2010).

Endometrial polyps can be sesile or pedunculated. Pedunculated polyps have a vascular fibrous stalk. They most commonly arise în the uterine cornua or fundus and can prolapse through the cervix. Intralesional cyst represent dilated endometrial glands (Munro 2019).

The likelihood of malignant transformation may occur in approximately 12.9 % of patients, and is higher in women with symptomatic bleeding, in menopause, risk factors including age, size over 1.5 cm, obesity and hypertension (Leone et al. 2010).

Ultrasonography demonstrates diffuse or focal echogenic thickening of the endometrium (Leone et al. 2010, Heremans et al. 2022).

Hysteroscopy is helpful for demonstrating small abnormalities that may be missed on transvaginal ultrasound, for guided biopsy of the focal lesions and for differentiating endometrial from myometrial lesions such as submucosal leyomiomas (Clark & Stevenson 2017, Wortman 2016).

MATERIAL AND METHODS

The objective of this study was to evaluate, clinically and ultrasonographic, a 33-year-old woman who sought medical advice for uterine bleeding.

Through the anamnesis, information was obtained regarding the following aspects:

- demographic information: name, age, adress;
- menstrual history;
- sexual history;
- history of births and spontaneous or on-demand abortion;
- the date of the last menstrual period;
- current contraceptive methods;
- the current complaints.

The clinical examination involved the systematic examination of the genital organs: vagina, cervix, uterus and ovaries.

The tehnique of the clinical examination:

- the patient was placed in the dorsal lithotomy position;
- an intravaginal speculum was placed în the vagina, so that the cervix can be adequately visualized;
- after the visual inspection, the uterus and adnexal areas were palpated using gloves.

The aspects evaluated by clinical examination were:

- appearance of the cervix and vagina;
- the amount and colour of blood flowing through the cervix;
- the position, mobility and size of the uterus;
- the presence of any formation (tumors or cysts) in the adnexal areas;
- pain on palpation.

The ultrasound examination was performed transvaginally using a Siemens Aloka-5-alpha ultrasound and a 6.5 Mz transducer.

The following aspects were evaluated:

- the dimensions of the cervix and uterine body;
- the appearance of the myometrium;
- the appearance and thickness of the endometrium;
- the appearance and dimensions of ovaries;
- the presence of a quantity of fluid in the retrouterine Douglas space;
- the bomdary between the myometrium and endometrium.

RESULTS AND DISCUSSIONS

1. The following information were obtained through the anamnesis:

- the patient’s age: 33 years old;
- the medical history: two cesarean births, no abortions;
- the history of previous menstrual periods: regular menstrual periods lasting approximately 28 days;
- date of the last normal menstruation: 20 days ago;

- characteristics of the last menstrual period: 5 days duration and normal blood flow;
- the current complaints: uterine bleeding with increased blood flow that started on day 20 of the menstrual cycle and continues to this day (8 days), unaccompanied by abdominal pain.

2. The clinical examination showed the following aspects:

- the elimination of an increased red blood flow with blood clots through the external cervical ostium;
- cervix without macroscopically visible lesions;
- uterus of normal size, placed in a retroverted position(retroversion), painless to palpation;
- supple adnexal areas.

3. The ultrasound examination showed:

- the uterine body was placed in retroversion, with dimensions of 5.58/ 4.96 cm and regular outline;
- the cervix had dimensions of 2.97/ 2.14 cm;
- the myometrium had a diffuse, inhomogeneous appearance, without localized formations;
- the endometrium had an intense echogenic appearance and a thickness of 1.52 m at the level of the fundus of the uterine cavity (Figure 1);
- the endocervical canal had a linear appearance;
- inside the uterine cavity, a hyperechoic image, 0.8 cm thick and 2 cm long was observed, starting from the uterine fundus level; this aspect is highly suggestive for the presence of an endometrial polyp (Figure 2);
- the right ovary appeared to be located retrouterine, measuring 2.80/ 1.56 cm, with well-differentiated cortical and medullary areas, and having in its structure small follicles, located peripherally, with diameters of 5-6 mm;
- the left ovary 2.50/ 1.56 cm, had the same aspect like the right ovary;
- a thin sheet of fluid was observed in the Douglas retrouterine space, recognizable by the anechoic appearance (Figure 3).

To visualise endometrial polyps, ultrasound examination should be performed în the first half of the menstrual cycle, after menstruation, when hyperechoic polyps can be differentiated within the uterine cavity, due to the contrast with the three-layered hypoechoic appearance of the endometrium (Pöder 2017).

Because the uterine bleeding was very profuse, externalized in continuous flow through the external cervical ostium, blind curretage of the uterine cavity was performed, for hemostatic and biopsy purposes. The endometrial fragments were analized by histopathological examination. Uterine curretage was performed under antibiotic protection. After the intervention, the patient's clinical outcome was favorable, without hemorrhage.

The results of the histopathological examination of the endometrium were:

- multiple fragments with microscopic endometrial structure, including glands with incipient, intermediate and focally advanced secretory changes;
- foci of endometrial hyperplasia without atypia;
- predecidualized stroma with predominantly chronic inflammatory infiltrate, diffuse or focal intraglandular and also infiltrated with polymorphonuclear leukocytes;
- dilated vessels with stasis and intraluminal fibrinous thrombi;
- mucosal fragments with predecidualized endometrial polyps.

The results of the laboratory tests were within normal limits, except the uroculture which detected an infection with Escherichia Coli bacteria and the hemoglobin value which was 11.8 g/ dl, in women a value under 12 g/ dl indicating anemia.

The patient was recommended to undergo a transvaginal ultrasound and a hysteroscopy after her next menstruation, but she did not returned for follow-up.

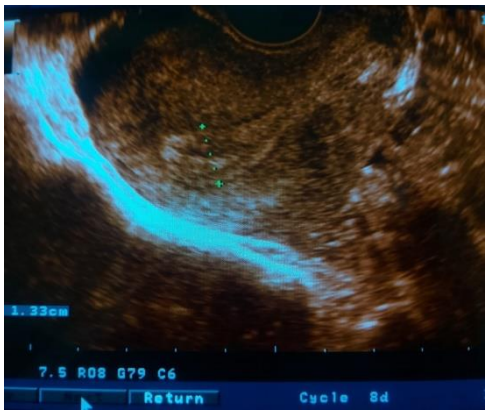

Figure 1. Sagittal section of the uterus. Measurement of the endometrial thickness which has an inhomogeneous echogenic appearance.

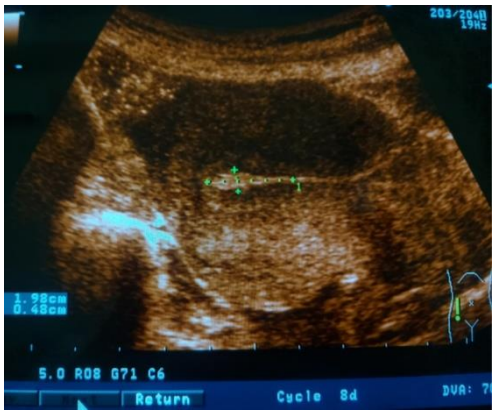

Figure 2. Sagittal section of the uterus. A hypoechoic image suggestive of a polyp is observed inside the uterine cavity.

Figure 3. Sagittal section of the uterus. The presence of fluid in the retrouterine Douglas space is observed.

CONCLUSIONS

In the event of severe bleeding, the first diagnostic step is to perform a transvaginal ultrasound, which can determine the cause of the hemorrhage and guide subsequent therapeutic management.

Blind uterine curretage can be performed in emergency conditions, for hemostatic purpose, but also for biopsy, followed by the histopathological examination of the endometrial fragments, which is mandatory.

To the extend possible, when technical equipment allows, exploration of the uterine cavity by hysteroscopy is indicated. Hysteroscopy is the method of choice for removing symptomatic uterine polyps and allows obtaining endometrium for biopsy.

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