

Dysfunctional Uterine Bleeding

Shawky Badawy M.D.

Department of Obstetrics and Gynecology, Department of Clinical Pathology, Reproductive Endocrinology, Upstate Medical University, Syracuse, New York.

***Corresponding author:** Shawky Badawy, Department of Obstetrics and Gynecology, Department of Clinical Pathology, Reproductive Endocrinology, Upstate Medical University, Syracuse, New York.

Received date: March 05, 2020; Accepted date: April 02, 2021; Published date: May 17, 2021

Citation: S Badawy. (2021) Dysfunctional Uterine Bleeding. International Journal of Clinical Case Reports and Reviews. 7(2);

DOI: [10.31579/2690-4861/123](https://doi.org/10.31579/2690-4861/123)

Copyright: © 2021 Shawky Badawy, This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Dysfunctional uterine bleeding occurs as a result of dysfunction of the hypothalamic pituitary ovarian axis. It is common in adolescent girls, and perimenopausal women. Proper evaluation to rule out organic causes for this bleeding is an essential part of the work up so that the proper management can be applied.

Key words: uterine bleeding; perimenopausal women; anovulatory cycles; endocrinopathies; ovulation; ovarian steroids

Introduction

Dysfunctional uterine bleeding is very common in adolescent girls, and perimenopausal women. This is due to anovulatory cycles. The diagnosis is accomplished by getting proper history and examination to rule out organic causes of uterine bleeding as Fibroids of the uterus, or other tumors. Also, the treating physician has to evaluate for any bleeding disorder, and any endocrinopathies.

Normal Menstrual Cycle

The normal menstrual cycle depends on an intact hypothalamic pituitary axis that facilitates the ovarian function. The ovary under the effect of FSH and LH, leads to follicular development and secretion of estradiol and progesterone. The growing follicles in the ovary secrete estradiol in the first part of the cycle. Following ovulation, the follicle becomes the Corpus Luteum and secretes in addition progesterone. The ovarian steroids act on the endometrium to prepare it for implantation of the embryo and development of the placenta.

Estradiol in the first part of the cycle leads to proliferation of the endometrium. After ovulation the granulosa cells of the follicle will become the corpus luteum that secretes in addition, progesterone and that leads to the formation of the decidua. If fertilization happens, the embryo will implant and the site of implementation will develop the placenta.

If fertilization does not happen, the corpus luteum life span is short and subsequently estradiol and progesterone decline. This leads to failure of the endometrium to form a decidua and the end result is the beginning of the menstrual flow. So long as the hypothalamic pituitary axis functions normally. The menstrual cycle remains regular and the patient gets a

menstrual cycle every 4-5 weeks unless pregnancy occurs when the cycles stop until after delivery [1].

Abnormal Cycles

Abnormality in the cycle occurs due to several conditions that affect the hypothalamic pituitary ovarian function.

Hyperprolactinemia affects the hypothalamic pituitary function. High prolactin levels lead to lower gonadotropins that will have a negative effect on the ovary and ovulation does not take place. The levels of estradiol are decreased, and since ovulation does not take place the progesterone level becomes in the anovulatory zone. The end result is lack of growth of the endometrium which then starts to separate and fall down irregularly leading to uterine bleeding [2].

Other factors that lead to anovulatory cycles include polycystic ovarian syndrome, condition of thyroid dysfunction, adrenal hyperplasia, obesity and weight issues [3].

Management

Patients who present with irregular uterine bleeding need evaluation of all the factors that affect the hypothalamic pituitary ovarian function. These factors when treated, then ovulation takes place and the cycles become regular [4].

Endocrine studies must be done including thyroid function, androgen levels, prolactin level. Abnormalities need specific treatment to correct these factors which will correct the function of the hypothalamic pituitary ovarian axis and corrects the ovulatory dysfunction.

In the evaluation, again in addition to endocrine studies we have to get a pelvic sono to rule out fibroids of the uterus and polyps. These will need surgical treatment.

Another important work-up is Endometrial biopsy. This will lead to the diagnosis of anovulatory cycle which is the cause of dysfunctional uterine bleeding or endometrial cancer. Cases of endometrial cancer will then be evaluated by an oncologist.

Another work-up is ultrasound of the pelvis, thus evaluating the presence of fibroids, or polyps or ovarian pathology. The work-up must include coagulation defects as Von Willebrand Disease which if present requires specific treatment [5].

The management depends on the severity of the bleeding. In cases of severe bleeding, the patient should be admitted to the hospital and started with intravenous blood transfusion. To control the bleeding, intravenous estrogen treatment is administered every 6 hours for the first 24 hours. This will be followed by estrogen and progesterone treatment for 2 to 3 weeks. When this is completed a withdrawal, bleeding occurs. The patient then is started on a combination (Estrogen and Progesterone) birth control pills [6].

Endometrial Ablation

Usually hormonal therapy is very effective in management of Dysfunctional Uterine Bleeding. In rare cases, the treatment is not effective and therefore surgical treatment is applied. Endometrial ablation is effective in these cases especially in premenopausal women [7, 8].

Discussion

Dysfunctional uterine bleeding is common in adolescent and perimenopausal women. Patients presenting to their medical consultant or to the emergency room, need evaluation to rule out organic etiology as

tumors, and endocrine factors. In addition, evaluation for bleeding disorders must be part of the management at large.

Hormonal treatment is very highly successful in these patients with dysfunctional uterine bleeding.

References:

1. Treloar A.E. Boynton R.E., Beha B.G., Brown B.W. (1967) Variation of the human menstrual cycle through reproductive life. *Int. J. Fertil.* 12: 77-126.
2. Corenblum B, Paireadeau N, Shewchuk AB. (1976) Prolactin hypersecretion and short luteal phase defects. *Obstet Gynecol.* 47: 486.
3. Deligeoroglou EK, Creatsas GK. (2015) Dysfunctional Uterine Bleeding as an early sign of polycystic ovarian syndrome during adolescence. *Minerva Gynecol.* 67(4): 375-381.
4. Committee on Practice Bulletins – Gynecology Practice Bulletin No. 136. Management of abnormal bleeding associated with ambulatory dysfunction. *Obstet Gynecol.* 2013 July; 122(1): 176-185.
5. James AH, Koides PA, Abdul Kadir R. et al. (2009) Von Willebrand disease and other bleeding disorders in women: Consensus in diagnosis and management from an international expert panel. *Am J Obstet Gynecol.* 201(1).
6. Jensen J.T., Paske S, Mellinger U, Machlitt A, Fraser I.S. (2011) Effective treatment of heavy menstrual bleeding with estradiol valerate and dienogest: a randomized controlled study. *Obstet Gynecol.* 117: 777-787.
7. Hokenstad AN, EL-Nashar SA, Khan Z, Hopkins MR, Famuyide AO. (2015) Endometrial ablation in women with abnormal uterine bleeding related to ovulatory dysfunction. A cohort study. *J. Minimum Invasive Gynecol.* 22(7): 1225-1230.
8. Wamsteker K., Emanuel M.H., Kruij J.H. (1993) Transcervical hysteroscopic resection of submucous fibroids for abnormal uterine bleeding: results regarding the degree of intramural extension. *Obstet Gynecol.* 82: 736-740.



This work is licensed under Creative Commons Attribution 4.0 License

To Submit Your Article Click Here: [Submit Manuscript](#)

DOI: [10.31579/2690-4861/123](https://doi.org/10.31579/2690-4861/123)

Ready to submit your research? Choose Auctores and benefit from:

- ❖ fast, convenient online submission
- ❖ rigorous peer review by experienced research in your field
- ❖ rapid publication on acceptance
- ❖ authors retain copyrights
- ❖ unique DOI for all articles
- ❖ immediate, unrestricted online access

At Auctores, research is always in progress.

Learn more www.auctoresonline.org/journals/international-journal-of-clinical-case-reports-and-reviews