Review Article

Evaluation of Risk Factors and Management of Abnormal Uterine Bleeding in Menopause Women

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ABSTRACT

Abnormal uterine bleeding is the most common complication in the premenopausal and post-menopausal women. In reproductive ages of women, menstrual cycle for every month is considered as regular. If it persists more than 5-9 days, it is regarded as something which is incorrect with menstruation. The major risk factors of AUB include age more than 40 years, comorbidities and certain medications. AUB etiology is classified, diagnosed and treated according to FIGO classification. It includes polyps, adenomyosis, leiomyomas, malignancies, coagulopathies, ovulation failure, endometrial failure, iatrogenic and not yet classified. Early diagnosis and management reduce the risk of endometrial cancer. Before the initiation of treatment tissue biopsy is considered as the standard diagnosis which further prevent the complications. Patients with abnormal uterine bleeding experience heavy menstrual bleeding, abdominal cramps, pain and weakness. Management includes both pharmacological and surgical procedures. Women with acute AUB are suggested to take NSAIDS such as mefenamic acid, ibuprofen, antifibrinolytics such as tranexamic acid and oral contraceptive pills. If patient is not responded, surgical procedure is preferred. Hysterectomy is the only procedure which is carried out and is considered as effective in pre- and post-menopausal women than in younger women.

Keywords: Abnormal uterine bleeding, Anti-fibrinolytics, Hysterectomy, NSAIDS.

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INTRODUCTION

Abnormal uterine bleeding is the most prevalent condition during reproductive age in women. It negatively impacts on patient's quality of life. It is associated with economic burden, decline in productivity, chronic-ill-health, increase the demand of medical care resources and leads to more exposure towards hospitals.[1] In female reproductive system, endometrium engaged in multiplication, modifications, disintegration and regeneration. In reproductive ages, all women have episodes of periods. If this menstrual cycle exceeds more than a week, it is considered as abnormal.[2] women with post-menopausal bleeding are more prone to develop endometrial carcinoma compared to pre-menopausal bleeding women. Hence attentive monitoring should be provided in women with PMB.[3] In 2011, a team of specialists from International Federation of Gynecology and Obstetrics implemented a categorization for the disorders effecting AUB that aid for the identification of risk factors, assessment and treatment of this condition.

Causes of abnormal uterine bleeding by FIGO classification

Structural Causes- PALM

1. Polyp
2. Adenomyosis
3. Leiomyoma
4. Malignant lesions

Non- Structural causes- COEIN

1. Coagulopathy
2. Ovulatory dysfunction
3. Endometrial dysfunction
4. Iatrogenic
5. Not yet classified

The structural lesion categorized in the PALM-COEIN have particular therapies according to the diagnosis.[4]

Polyps: The frequency or occurrence of endometrial polyps generally increases with age group among women. These endometrial polyps may be completely asymptomatic or can cause heavy menstrual bleeding as a symptom. Most of the polyps are usually non-cancerous (benign) and in rare cases, some can rise to cancerous (malignant) but the risk of developing carcinoma is less.

Adenomyosis: The inner lining of the uterus i.e., the endometrium enlarges into the muscle wall of the uterus (myometrium) is defined as the adenomyosis. Symptoms

includes menstrual cramps and heavy bleeding. It is also considered as benign and examination results may show uterine enlargement.[5]

Leiomyoma: It is considered as benign tumor in the women of reproductive age that rarely convert into malignant. Women affected with leiomyoma has irregular, painful and heavy bleeding as a symptom. Patients having single leiomyoma are more symptomatic than patients with multiple leiomyomas.[6]

Malignancy: It is the major risk factor and should be examined in all the women affected with AUB. Biopsy is usually preferred diagnosis to detect the risk of causing carcinoma. It is categorized as AUB-M according to FIGO classification.[7]

Coagulopathy:13% of the women with abnormal uterine bleeding are affected from coagulopathies especially von Willebrand disease. Heavy menstrual bleeding is the most common symptom.

Ovulatory dysfunction: It is generally seen in women with reproductive ages. These are generally associated with endocrinopathies such as excess weight, pcos, weight reduction due to vigorous exercises.[8]

Endometrial dysfunction: It is usually caused due to infection or inflammation in the endometrium. Some of the reasons for endometrial dysfunction includes activation of inflammatory mediators, lack of prostaglandins to fight against infection or to control the blood flow or clots.[9]

Iatrogenic: It is usually due to certain medications such as corticosteroids, contraceptives intrauterine route), anti-coagulants and anti-depressant drugs.

Not yet classified: The pathological conditions are rarely classified and do not fit in the classification.[10]

Risk factors of abnormal uterine bleeding

Over weight

Older age

Infertility

Anovulation

Nulliparity

Diabetes

Heavy menstrual bleeding

Endometrial carcinoma in post menopause [11]

Thyroid dysfunction [12]

Medications- glucocorticoids [13]

Diagnosis

Physical examination- Age, menstrual bleeding history, underlying diseases, medication history, family history.

Laboratory findings- Pap test, blood test, USG abdomen for endometrial thickness.

Tissue sample tests- Endometrial biopsy, hysteroscopy.[14]

Transvaginal sonography- It is a low cost, non-invasive method uses broad frequency of ultrasound waves towards uterus to examine the abnormalities and altered pathological changes (ovary functions, endometrial thickness). [15]

Thyroid function test- Imbalances in the thyroid hormone levels causes disturbances in the ovulatory hormones.[16]

When to prefer endometrial biopsy

Women those are not on hormonal replacement therapy in their post-menopausal bleeding need to examine for carcinoma through biopsy. Women those receive hormonal replacement therapy for 6 months become amenorrhea. As per the Society of Obstetricians and Gynecologists of Canada, if women continue to bleed beyond 6 months after hormonal replacement therapy, it is considered as abnormal and biopsy should be done to rule out the altered pathology of carcinoma.[17]

Patients with older age and presenting underlying symptoms, irregular menstrual cycle, use of external estrogen are at high risk of developing cancer, hence biopsy should be preferrable.[18]

Management

For the management of abnormal uterine bleeding, endometrial biopsy is considered as goal standard diagnosis to examine the lesions and to improve the patient quality of life.[19]

The ultimate goal of therapy in abnormal uterine bleeding is to correct the anemia which is caused due to menorrhagia. Anemia in patients leads to fatigue, hypotension, shock. Hence proper evaluation and management is essential.[20]

Pharmacological treatment:

Medication	Class	Dose
Mefenamic acid	NSAIDS	250mg
Naproxen	NSAIDS	250mg
Tranexamic acid	Anti-fibrinolytics	500mg
Progestins 1. Levonorgestrel 2. Norethisterone acetate	Oral Contraceptives (pills and intrauterine devices)	20mcg/day 2.5-10mg

Mefenamic acid is a non-steroidal anti-inflammatory drug class used in AUB. It reduces the blood loss caused due to heavy menstrual bleeding.

Tranexamic acid improves the patient quality of life by reducing the blood flow which is caused due to heavy menstrual bleeding.[21]

Surgical procedure:

When pharmacological therapy is contraindicated, surgical management is required. Hysterectomy is the only process to cure abnormal uterine bleeding especially in patients experiencing heavy menstrual bleeding. It is performed in patients who had diagnosed with endometrial cancer. Hysterectomy is contraindicated in women those who choose for family planning. It is very effective in premenopausal and perimenopausal women than in younger women.[22]

CONCLUSION

Abnormal uterine bleeding is the most common cause in reproductive ages of menopausal women. If women experience irregular bleeding patterns for more than a week it is considered as abnormal. To overcome, consult nearest gynecologists to reduce complications and to improve the quality of life. Endometrial biopsy or tissue sampling is considered as standard evaluation of AUB to identify the lesions or altered pathology of uterus. Tranexamic acid, mefenamic acid and oral contraceptives are considered as first line in the treatment of AUB. If it fails, hysterectomy is performed. Patients with AUB should balance anemia which is caused due to heavy blood loss. Hence foods rich in iron and vitamin C should be consumed. Early diagnosis and treatment can provide better outcomes in patients with AUB.

Abbreviations

AUB- Abnormal uterine bleeding, FIGO- International Federation of Gynecology and Obstetrics, PMB- Post menopausal bleeding, NSAIDS- Non steroidal anti-inflammatory drugs, USG- Ultra sonography.

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