
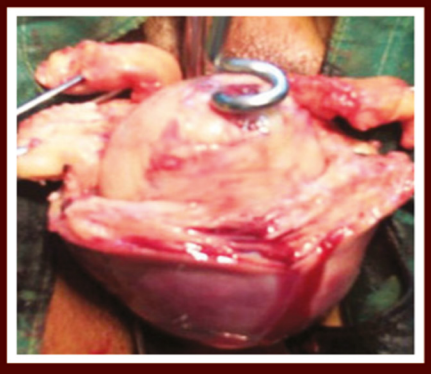
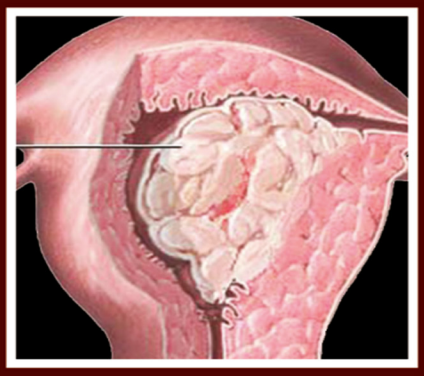


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Step by Step®

Management of Abnormal Uterine Hemorrhage



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Chapter 3

Abnormal Uterine Hemorrhage—Diagnosis and Medical Management

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Abnormal uterine hemorrhage (AUH) is the most common cause for the gynecological visits in the society. It comprises for over 20% of total OPD patients visiting gynecologists and approximately 25% of all the gynecologic procedures done are for the treatment or diagnosis of AUH.

Abnormal Uterine Bleeding

As a matter of fact

"Any type of uterine bleeding that differs from normal menstrual bleeding pattern (regular cycle) can be labeled as abnormal uterine bleeding."

Be it before puberty or after menopause.

Dysfunctional uterine bleeding is a term used for abnormal uterine bleeding –where pelvic organs are normal and no organic pathology seen. It usually follows menstrual rhythm in disturbed way.

Abnormal Uterine Bleeding

Cyclical menstrual bleeding is a visible show of a complex nonvisible drama played between the different hormones like GnRH, FSH, LH, estrogen, progesterone, at the level of hypothalamus, anterior pituitary, ovary and endometrium level—inside the woman's body.

For this visible normal show few criteria are required and work together in a balanced way.

To give a successful normal rhythm of 3-4/28-30 days menstrual cycle criteria required are as follows:

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- Normal surface area of endometrium in uterus.
- Normal thickness of endometrium.
- Balance between different prostaglandins in endo.
- Normal clotting mechanism at endometrium.
- Absence of endometrial pathology.
- Normal level and interaction of estrogen and progesteron.
- Intact H-P-O axis.
- Absence of endocrino disorder affecting hpo axis.
- Normally active ovary.
- Normal mental status of the woman.

Abnormal Uterine Bleeding

Disturbance in any of these criteria leads to menstrual irregularity

Now it is understood that:

- Amount and flow are decided by endometrium.
- Frequency is decided by ovarian hormones.
- Duration of bleeding is decided by both of above.

Two types of menstrual irregularity:

– In presence of pathology of organs
– In absence of pathology of organs-DUB

Different Types

Hypermenorrhea

(Hyper-Excessive Meno-Menstru orrhoea-flow)

– Excessive menstrual flow – also called menorrhagia (Orragia-excessive flow)
– Here amount and duration – Increase

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- Frequency –No Change
- Cycle 7-9 Excessive/28.

Hypomenorrhea

- Scanty menstrual flow
- Amount duration – decrease
- Frequency – No change 2-3 scanty/28
- Cause- at Endom site
- Different types.

Epimenorrhea (Polymenorrhea)

- More frequent periods
- Frequency-changed amount and duration – No change
- Cycle – 3-4/21

Oligomenorrhea

- Less frequent cycle - Frequency-changed
- Amount and duration-No change
- Cycle – 3-4/35-40
- Cause- at Ovarian site
- Different Types
- Mixture of above Patterns
- Hypermenorrhea + Epimenorrhea
- Excessive frequent periods 7-8/21
- Also known as polymenorrhagia
- Hypomenorrhea + Oligomenorrhea
- Scanty and prolonged periods
- Less and delayed cycles 2-3/35-40

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– Metrorrhagia
– Continuous bleeding disturbing normal cycle.

Menorrhagia

Has general-Organic-Functional Cause

- **General**
  – Disturbed liver function – CCF – Hypertension.
  – Thyroid disorder – Clotting defect – Leukemia.
  – Emotional upset.
- **Organic pelvic pathology**
  Fibroid uterus-Adenomyosis-TO mass-Fixed retroverted uterus – pelvic endometriosis-ovarian cyst.
- **Functional**
  – Hormonal imbalance only -DUB.

Epimenorrhea

– Seen in Adolescence
– Perimenopausal period
– Following delivary-abortions
– Hyperstimulation of ovary by pituitary hormones
– PID - Ovarian dysfunction
– Oligomenorrhea- Adoles-Perimenopausal period
– Hypomenorrhea- Uterine synechiac-Asherman's tubercular endo. patient on OC pills –Malnutrition
– Adoles-Perimenopausal.

Metrorrhagia

- Combinations of above like Hyper + Epimeno.
- Local cause at endometrium is more common+ Pelvic cause.

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- PID—DUB—Submucus Fibroid-Endo.Polyp
- IUCD — Endom.tritis - Carcinoma Ut/Cx/Tub
- Foreign body in uterus- Vascular erosions of cervix
- Cervical polyp- Ca vagina –Vaginitis – Urethral caruncle-dysfunctional uterine bleeding (DUB)

It can be defined as an abnormal uterine bleeding without any clinically detectable organic pelvic pathology.

Bleeding may be abnormal in amount, duration and frequency.

More common at two terminal ends of menstrual life—just after puberty and just before menopause

Common age groups- 15-20 yrs 35-50 yrs

Incidence - 10 to 30% of above age group

Dysfunctional uterine bleeding DUB

Classification

- Based on the level of disturbed menstruation
- Primary – Disturbance is at endometrium. Disturbance is at HPO axis
- Secondary – Disturbance is secondary to pathology outside the pelvis. Primary is more common.

Disturbance at Endometrium

Main disturbance is in mechanism of clotting of blood at endo.

Defect at endometrium blood vessels-clotting factors of blood-defect surrounding vessels-altered

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balance of prostaglandins in endometrium Hyper/Hypomenorrhea Dysfunctional uterine bleeding DUB

Disturbance at HPO axis

Disturbed H-P-O-E- axis due to any reasons

This axis is easily disturbed due to emotional upset like anxiety-worries-sexual disharmony-Tensions

Drug interactions may disturbs hormone levels

After delivery-abortions MTP axis is defective

Undue haphazard use of hormones disturbs the axis.

Dysfunctional uterine bleeding DUB

Abnormal bleeding may be associated with or without Ovulation i.e., ovulatory and anovulatory.

Ovulatory Bleeding

Type 1— Where follicular development is speeded up-so follicular phase is short- FSH level increased-makes hyper proliferation of endometrium (estrogen)-frequent ovulation-Luteal phase remains same so cycle is short and flow is more-Epimenorrhea.

Dysfunctional uterine bleeding DUB

Type 2—Decreased FSH activity/Ovarian response to FSH is poor

Prolonged but poor follicular phase-Late ovulation-Normal luteal phase- endo thin-Scanty and prolonged cycle- Oligomenorrhea.

Histopathology–Irregular sheeding of endometrium signs of degeneration and regeneration both seen

Irregular ripening of endometrium

Signs of both follicular and secretory changes of glands seen.

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Dysfunctional Uterine Bleeding (DUB)

Anovulatory Bleeding

Usually excessive as uninhibited growth of endometrium in absence of progesterone.

No follicle rupture-go on growing-continue secretion of estrogen, hyperplastic endo. Self limited growth of follicle-rupture without ovum-no CL-No progesterone.

But withdrawal of estrogen causes menstruation which is excessive but painless

Menopause-Endometrium is atrophic-no ovulation

Here capillary wall is not thick enough to resist

Blood flow –breaks easily and bleeds

The main aim of the clinical evaluation of AUH is to establish a specific diagnosis and to consider the appropriate treatment. History and physical examination provides the basic foundation and the correct direction on which the evaluation begins.

The evaluation of the disease is based on the age of the patient at which she is suffering from the menstrual disorders.

AGE

Pregnancy complications as source of AUH are commonly seen in the reproductive age group and very infrequent in the perimenopausal age group.

AUH in perimenopausal age group is due to

- Adenomyosis,
- Fibroid,

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- Pelvic inflammatory disease,
- Endometritis etc.
- Few conditions like Von Willebrand's disease, anatomic lesions like septate uterus, bicornuate uterus etc. are present since birth but can be evaluated at the time of adolescence only.

HISTORY

Although, the medical history is not very specific enough to make the diagnosis, but it may led to few diagnostic possibilities. Patients age, weight, previous menstrual patterns, medical diseases associated etc., are

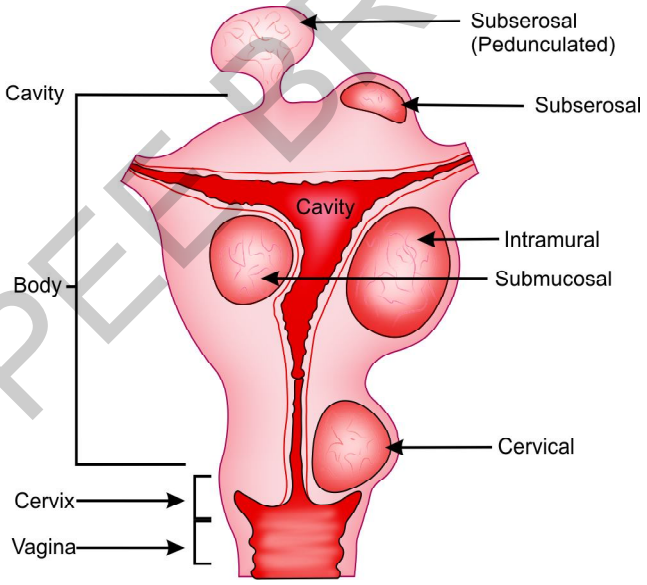

Fig. 3.1: Fibroids multiples

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Fig. 3.2: Adenomyosis

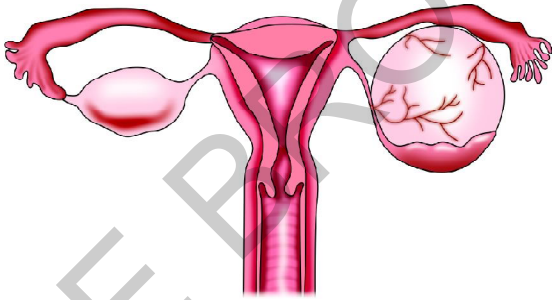

Fig. 3.3: Ovarian cyst

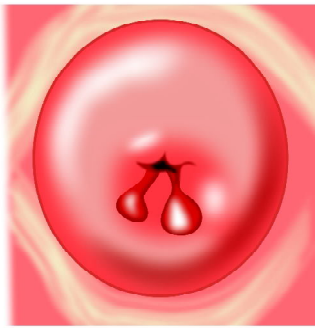

Fig. 3.4: Cervical polyps

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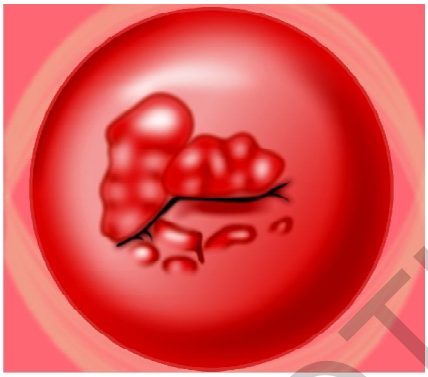

Fig. 3.5: Carcinoma cervix



Fig. 3.6: Endometrial polyp

of value in determining the diagnosis. Later on, detail history taking on the present status of pregnancy, bleeding diathesis, structural anomalies, anovulatory disorders etc can be useful in differential diagnosis of AUH.

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PHYSICAL EXAMINATION

A systemic approach to the physical examination plays a vital role in the further evaluation and management of AUH. The first step is to establish the bleeding is from the uterus and not from any other related organs like urethra and/or vagina. The commonest nonuterine causes of vaginal bleeding are traumatic, inflammatory, infectious, hormonal and neoplastic lesions of skin, GIT and genitourinary system and the reproductive system itself.

The other relevant history to be asked is about pregnancy complications, coagulopathies or any structural lesions etc., is useful in postulating the diagnosis of AUH.

Per speculum examination and visualization of the cervix usually confirms the uterine bleeding and rules out the cervical pathology. The uterine contour, size, firmness, mobility, position and tenderness can suggest the presence of fibroids, adenomyosis, pelvic malignancies, pregnancy, Müllerian anomalies and pelvic infections.

The per vaginal and bimanual examination will reveal the uterine size, firmness, mobility etc for the confirmation of the diagnosis of adenomyosis, fibroid uterus, pelvic neoplasia, pregnancy or any adnexal pathology like PCOD or PID.

The petechial spots and bruising of the mucous membrane are the confirmatory signs of bleeding diathesis and coagulopathies.

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At present, he is working as Head of Obstetrics and Gynecology Department at Dashashrimali Hospital, Rajkot, Gujarat, India since last 26 years. He joined Government Medical College, Baroda, as an Assistant Professor of Ob/Gyn from 1980 to 1983. Since 1983, he is in Rajkot as the Head of Gynecology Department. He became Fellow of Indian College of Obstetrics and Gynecology in 1990. He has invented SRS short straight needle for easy ligation of pedicles in non-descent vaginal hysterectomy (NDVH). He is a past President of Rajkot Obstetrics and Gynecological Society in the year 1990-1992.



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Medical Publishers (P) Ltd.
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ISBN 978-93-5025-026-6