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CHAPTER: 2nd: PUBERTY

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Puberty is the period of life during which secondary sex characteristics develop and the capability of sexual reproduction are attained. It is the period which links childhood to adulthood.

Physical changes / pubertal changes

In girls

- Breast development
- Pubic & axillary hair growth
- Growth in height & starting in menstruation

In Boys

In male, pubertal sexual maturation is based on genital size & pubic hair development. The changes are:

- Testicular enlargement
- Increase in length & diameter of penis.
- Growth of curly hair around the base of penis & over the genital area.
- Appearance of mature spermatozoa in microscopic urinalysis.

Stages of pubertal development in girls (Tanner stages).

Stage 1

It is the prepubertal stage. No palpable breast tissue, areola generally less than 2cm in diameter. Nipples may be

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inverted, flat or raised. No pubic hair.

Stage 2
Breast budding occurs ĉ a visible ad palpable mound of breast tissue. The areolae begin to enlarge and nipples develop to varying degree. Sparse long hair on either side of labia majora.

Stage 3
Further growth of entire breast tissue; darker, coarser ad curly hair over the mons pubis.

Stage 4
Secondary mound of areola ad papillae projecting over the breast tissue adult type hair covering the mons pubis.

Stage 5
Areola recessed to general contour of breast. Adult hair ĉ an inverse triangle distribution.

MENSTRUAL CYCLE
Menstruation refers to the monthly discharge through the vagina of blood ad other substances from the uterus in non-pregnant adult females. Although every woman has an individual cycle of menstruation, ŝ varies in length, the average cycle is taken to be 28 days long ad recurs from puberty

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to menopause except when pregnancy intervenes.

PHASES

1. Early proliferative phase:
Early proliferative phase follow menstruation & lasts upto 9 days. The endometrium is less than 2cm thick. The glands are narrow & straight. Under the control of estrogen, regrowth & thickening of endometrium begins.

2. Late proliferative phase: Continues upto 14 days until ovulation. The endometrium is thicker. At the completion of this phase the endometrium consists 3 layers.

1. The basal layer: lies immediately above the myometrium, about 1mm in thickness.

2. The functional layer: contains tubular glands of about 2.5mm of thickness.

3. The spongy layer: This has cuboidal ciliated epithelium & covers the functional layer.

3. Secretory phase: follows ovulation, it is under the influence of progesterone & estrogen from the corpus luteum. The phase lasts upto 26 days. The endometrium is extremely vascular & rich in glycogen

4. Premenstrual phase: corresponds to the regression of the corpus luteum & declines in the levels of ovarian hormones

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It lasts from day 27 to 28.

5. Menstrual phase: is characterized by vaginal bleeding it lasts for 3-5 days. The endometrium is shed up to the basal layer along c blood from capillaries, if the unfertilized ovum. Bleeding stops when the coiled arteries return to a state of constriction.

Premenstrual Syndrome

PMS is a cluster of physical, emotional and behavioral symptoms that are usually related to the luteal phase of the menstrual cycle. PMS is very common, affecting many women at some time in their lives.

Clinical Manifestations

Major symptoms of PMS include physical symptoms such as:

- Headache
- Fatigue
- Low back pain
- painful breasts
- Feeling of abdominal fullness

Behavioural & Emotional symptoms:

- general irritability
- mood swings
- binge eating
- crying spells.

Medical Management

Because there is no single treatment or known cure for PMS, it is

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helpful for woman to keep a record of their symptoms so they can anticipate & therefore cope w them.

- Regular exercise
- Avoid caffeine, high fat foods,
- Alternative therapies include vit B6 (pyridoxine) and vit E, calcium, magnesium.

Pharmacological treatments include.

- Selective serotonin reuptake inhibitors e.g. fluoxetine
- Prostaglandin inhibitors e.g. Ibuprofen
- Diuretic agents
- Anticonvulsant agents.

Nsg Management

- The nurse obtains a health history, noting the time when symptoms began & their nature & intensity
- The nurse then determines whether symptoms occur before or shortly after the menstrual flow begins.
- The nurse can show the patient how to record the timing & intensity of symptoms
- The nurse encourages the patient to use exercise, meditation & relaxation activities to reduce stress.
- The nurse also encourage patient to take medications as prescribed.
- An immediate psychiatric evaluation is necessary for woman w any suggestions of