



FAMILY PLANNING-2

FirstRanker.com



HORMONAL CONTRACEPTION

- Most effective spacing methods of contraception.
- Oral contraceptives of the combination are almost 100 percent effective in preventing pregnancy.
- More than 65 million people in the United States are estimated to be taking the “pill”

Classification of Hormonal Contraceptives

A- Oral Pills:

- Combined pills
- Progestogen-Only Pill (POP)
- Post coital pill
- Once-a-month (long-acting pill)
- Male pill

B- Depot (slow release) formulations


- Injectable
- Subcutaneous Implants

➤ Vaginal rings

A- ORAL PILLS

I- Combined Pills:

- A major spacing method.
- Contains 30-35 mcg of a synthetic oestrogen, and 0.5-1.0 mg of a progestogen.
- It is given orally for 21 consecutive days beginning on the 5th day of menstrual cycle, followed by a break of 7 days which period menstruation occurs

- 
- When bleeding occurs this is considered to be the first day of next cycle. This is called **“withdrawal bleeding”** rather than menstruation.
 - The pill should be taken everyday at a fixed time preferably before going to bed.

2- Progestogen-only pill(P

- **“Minipill” or “Mocropill”:**
- It contains only progestogen, which is given in small doses throughout the cycle.
- Poor cycle control and increased pregnancy rate.
- Can be given to older women for whom the combined pill is contraindicated because of cardiovascular risks. Also can be given to young women with risk factors for Neoplasia.

3- Post coital Contraception

“**Morning after**” is given within 72 hours of an unprotected intercourse.

Methods:

- a) **IUD:** The simplest technique is to insert an IUD if acceptable, especially a copper device, within 5 days.
- b) **Hormonal:** More often this method is preferred. Levonorgestrel 0.75 mg is used as one tablet within 72 hours of unprotected sex and the second tablet is taken after 12 hours of first dose.

4- Once-a-month (long acting) Pill:

- Quinestrol, a long acting oestrogen given in combination with a short acting progestogen, the results have been disappointing.
- Pregnancy rate is too high to be acceptable.
- In addition bleeding tends to be irregular.

5- Male pill:

- An ideal male contraceptive would decrease the sperm count while leaving testosterone at normal levels.
- But hormones that suppress sperm production tends to lower testosterone and affect potency and libido.

5- Male pill:

- Made of Gossypol- a derivative of seed oil.
- Effective in producing azoospermia severe oligospermia.
- But as many as 10 percent of men permanently become azoospermic taking it for 6 months.
- This can be toxic.

Mode of action of Oral p

- **Combined Oral Pills:** To prevent release of ovum from the ovary by blocking the pituitary secretion of gonadotrophin (necessary for ovulation).
- **Progestogen only Pills:** Render cervical mucus thick and scanty and inhibit sperm penetration.
- Progestogens also inhibit the tubal motility and delay the transport of sperm and of the ovum to the uterine cavity.

Effectiveness

- The combined type of oral contraceptives are almost 100 percent effective in preventing pregnancy.
- **In Clinical trials:** the effectiveness of Progestogen-only Pills is almost as good as that of combination products.
- **In large family planning programs:** the continuation rate and effectiveness are low.
- The effectiveness may also be affected by certain drugs such as rifampicin, phenobarbital and ampicillin.

Adverse Effects

1. Cardiovascular effects
2. Carcinogenesis
3. Metabolic effects
4. **Other effects:**
 - Liver disorders
 - Lactation
 - Subsequent fertility
 - Ectopic pregnancies
 - Foetal development

5- Common unwanted effects:

- Breast tenderness
- Weight gain
- Headache and migraine
- Bleeding disturbances

Beneficial Effects

- Almost 100 percent effective in preventing pregnancy.
- The pill has a number of non-contraceptive health benefits.
- **It protects against 6 diseases:**
 - Benign breast disorders including fibrocystic disease and fibroadenoma
 - Ovarian cysts
 - Iron deficiency anemia
 - Pelvic inflammatory disease
 - Ectopic pregnancy
 - Ovarian cancer

Contraindications


A- Absolute:

- Cancers of breast and genitals
- Liver disease
- Previous or present thromboemb
- Cardiac abnormalities
- Congenital hyperlipidaemias
- Undiagnosed abnormal uterine bl

Contraindications

B- Special problems requiring n surveillance:

- Age over 40 years
- Smoking and age over 35 years
- Mild hypertension
- Chronic renal disease
- Epilepsy
- Migraine

- 
- Nursing mothers in the first six months
 - Diabetes mellitus
 - Gall bladder disease
 - History of infrequent bleeding
 - Amenorrhoea

Duration of use

- The pill should be used primarily in younger women.
- Those over 35 years should go in for another form of contraception.
- Beyond 40 years of age this is not recommended because of the increased risk of cardiovascular complication

B- DEPOT FORMULATION

- Highly effective, reversible, long acting, oestrogen free, in which a single administration suffices for several months or years.
- **Categories:**
 1. Injectable contraceptives
 2. Sub-dermal implants
 3. Vaginal rings

I- Injectable Contraception

Types :

- A. Progestogen-only injectables
- B. Once-a-month combined injectables

A- Progestogen-only injecta

Types:

1. DMPA (depot-medroxyprogesterone
2. NET-EN (norethisterone enantate)
3. DMPA-SC 104 mg (depo-subQ proven

a. DMPA (Depot-medroxyprogesterone enacetate)

- DMPA or Depo-Provera dose is an intramuscular injection of 150 mg of medroxyprogesterone acetate every 12 weeks for 03 months. Gives protection in 99 percent of women for at least 03 months.
- **Indirect effects:** on endometrium
- **Direct effects:** on the fallopian tube and the production of cervical mucus

Advantage:

- Does not effect lactation

Side effects:

- Weight increase
- Irregular menstrual bleeding
- Prolonged infertility after its use

Fine for multiparae of age over 35 years who have completed their families

b. NET-EN

- Norethisterone enantate is less extensively used as compared to DMPA. Given intramuscularly in a dose of 150 mg every 60 days.
- Contraceptive action is inhibition of ovulation and progestogenic effects on cervical mucus.
- A slightly higher failure rate as compared to DMPA.

Administration:

- The initial injection of both DMPA and NET-EN should be given during first 7 days of menstrual period by deep intramuscular injection.
- Timings are very important to rule out the possibility of pregnancy.
- Although compliance with regular injection should be encouraged, both DMPA and NET-EN may be given 2 weeks early or two weeks late.

c-DMPA-SC 104 mg

- A new lower dose formulation of **Levonelle** depo-sub Q provera 104 is injected into the skin rather than in the muscle
- It contains 104 mg of DMPA rather than 150 mg in intramuscular formulation
- DMPA-SC is given at 03 months intervals. This is as effective as injectables, and the pattern of bleeding and amount of weight gain is the same.

Side-effects

- Disruption of normal menstrual cycle manifested by episodes of unpredictable bleeding (at times prolonged and at times excessive)
- Women may become amenorrhoeic

Contraindications

- Cancer of breast and genitals
- Undiagnosed uterine bleeding
- Suspected malignancy
- History of high blood pressure
- Heart attack
- Deep vein thrombosis
- A women breast feeding a baby le
6 weeks

B- Combined injectable contraceptives:

- Contain progestogen and an oestrogen at monthly intervals, plus or minus three days.
- The cervical mucus is affected, mainly by progestogen, and becomes an obstacle to sperm penetration.
- Changes are produced in endometrium which makes it unfavourable for implantation if fertilization occurs, which is extremely unlikely.
- In clinical trials Cyclofem/Cycloprovera and Mesigyna have been used.

Contraindications

- Confirmed or suspected pregnancy
- Past or present evidence of thromboembolic disorders
- Cardiovascular disorders
- Malignancy of breast
- Diabetes with vascular complications

2-Subdermal Implants

- **Norplant:** A long term implant, consists of 6 silastic capsules containing 35 µg each of levonorgestrel.
- **Norplant-2:** Easier to insert and remove. These two small rods and capsules are implanted beneath the skin of the thigh or upper arm. Effective contraceptive for over 5 years and effect is reversible after removal of capsule.
- **Main disadvantage:**
 - Irregularities of menstrual bleeding
 - Surgical procedures are necessary to insert and remove the implants

3- Vaginal Rings

- Vaginal rings containing levonorgestrel have been found to be effective.
- The hormone is slowly absorbed through the vaginal mucosa, permitting most women to bypass the digestive system and avoid first-pass metabolism, and allowing a potentially lower dose.
- The ring is worn inside the vagina for 3-4 weeks of the cycle and removed for 1 week.

POST CONCEPTIONAL METH (Termination of Pregnancy)

I. Menstrual Regulation:

- It consists of aspiration of the uterine contents 6 to 14 days of a missed period, but before most pregnancy tests can accurately determine whether or not pregnancy is present.

Complications:

- **Immediate:** Uterine perforation
- **Late:** tendency of abortion or preterm labour, infertility, menstrual disorder

2. Menstrual Induction:

- This is based on disturbing the normal progesterone–prostaglandin balance. Intrauterine application of 1-5mg of prostaglandin F₂.
- Within a few minutes of prostaglandin impact the uterus responds, the bleeding starts and continues for 7-8 days.

3.Oral Abortifaciant:

- Mifepristone (RU 486) in combination with misoprostol is 95 percent successful in terminating pregnancies of upto 10 weeks duration with minimum complications.
- The common regime is mifepristone 200 mg orally on day 1, followed by misoprostol 800 mg vaginally either immediately or within 6-8 hours.

Contraindications:

- History of allergy or hypersensitivity to these drugs
- Confirmed or suspected ectopic pregnancy
- IUD in place
- Chronic adrenal failure
- Hemorrhagic disorder
- Inherited porphyria
- If a patient does not have access to medical facilities to provide emergency treatment for complications

ABORTION

- Defined as “termination of pregnancy before the foetus becomes viable”.
- This has been fixed at 28 weeks when the foetus weighs approximately 1000 g.
- **Abortions types:**
 - a) Spontaneous
 - b) Induced.
- Spontaneous may be considered as nature's method of birth control.
- Induced abortions may be legal or

Hazards of Abortion

A- Early Complications:

- Hemorrhage
- Shock
- Sepsis
- Uterine perforation
- Cervical injuries
- Anesthetic and psychiatric complications

B- Late Sequelae:

- Infertility
- Ectopic gestation
- Increased risk of spontaneous abortion
- Reduced birth weight



Conditions under which a pregnancy can be terminated:

- Medical
- Eugenic
- Humanitarian
- Socio-economic
- Failure of contraceptive devices

Miscellaneous

- Abstinence
- Coitus interruptus
- Safe period (rhythm method)
- Natural family planning methods
 - Basal body temperature method
 - Cervical mucus method
 - Symptothermic method
- Breast-feeding
- Birth control vaccine



TERMINAL METHODS (Sterilization)

- Voluntary sterilization is a well established contraceptive procedure for couples desiring no more children.

Female sterilization: 85 percent

Male sterilization: 10-15 percent

Male sterilization or vasectomy

- Simpler, faster and less expensive procedure carried out under local anesthesia.
- **Procedure:** to remove a piece of at least 1 cm after clamping. The ends are ligated and then folded back on themselves and suture so that the ends face away from each other, this will reduce the chance of recanalization.
- During vasectomy sperm production and hormone output is not affected.

Complications

- Operation
- Sperm granules
- Spontaneous recanalization
- Autoimmune response
- Psychological

Female sterilization

- This can be done as an interval procedure postpartum or at the time of abortion
- **Two procedures are common:**
 - a) Laparoscopy
 - b) Mini lap operation

a- Laparoscopy:

- This technique is through abdominal approach with a specialized instrument called “**laparoscope**”
- This is not advisable for post partum patients for 6 weeks following delivery
- Complications are uncommon but if they do occur they may be of serious nature requiring experienced surgical intervention.

b-Minilap Operation:

- It is a much simpler operation requiring a small abdominal incision only 2.5-3 cm, conducted under local anesthesia.
- This is suitable for postpartum tubal sterilization.
- It has advantages over other methods with regard to safety, efficiency and ease in dealing with complications.



Thanks