MEDICAL TERMINATION PREGNANCY

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DEFINITION

- Induced abortion is the deliberate termination of pregnancy before the period of viability. It can be legal or illegal.
- In India, legal induced abortion is termed as medical termination of pregnancy(MTP).
- The Indian MTP Act permits the wilful termination of pregnancy before the age of fetal viability (24-weeks' gestation) for well-defined indications.

MTP ACT

MTP ACT,1971

- Abortion was legalized in India by the MTP Act in 1971.
- It legalized MTP up to 20 weeks of gestations.
- Implemented in 1972 and was amended many times. Last amendment in 2021.
- It lays down the conditions under which the MTP can be performed in India (indications, who can perform MTP, place, etc.)

MTP Amendment Act, 2021

- The Bill permits abortion to be allowed up to 20 weeks on the opinion of just one medical practitioner.
- To terminate pregnancies between 20 and 24 weeks, the opinion of two doctors are required. This extension of the gestation period up to 24 weeks is given for special categories of women such as rape/incest victims, differently-abled women and minors.
- For abortions beyond 24 weeks, a state-level Medical Board will decide if it can be permitted, in case of substantial foetal abnormalities.
  - The Board will consist of a gynaecologist, a paediatrician, a radiologist or sonographer and any other number of members as notified by the state government.

- Only doctors with specialisation in gynaecology/obstetrics can perform abortions.
- According to the Bill, the “name and other particulars of a woman whose pregnancy has been terminated shall not be revealed”, except to a person authorised by law.
- In cases where abortions are desired to terminate pregnancies arising out of rape, where the gestation period exceeds 24 weeks, the only manner would be through a writ petition.

Time since conception	Requirement for Abortion	
	MTP Act, 1971	MTP (Amendment) Act, 2021
Up to 12 weeks	Advice of one doctor	Advice of one doctor
12 – 20 weeks	Advice of two doctors	Advice of one doctor
20 – 24 weeks	Not allowed	Advice of two doctors for some categories of pregnant women
Exceeds 24 weeks	Not allowed	Medical Board in case of substantial foetal abnormality
Any time during pregnancy	One doctor if abortion is immediately necessary to save the pregnant woman's life	

Indications for MTP

- **Medical Grounds**
  - Medical grounds when the continuation of pregnancy is likely to: (i) endanger the life of the pregnant women or (ii) cause grievous injury to her physical and/or mental health, as in cases of severe hypertension, cardiac disease, diabetes, psychiatric illnesses, genital and breast cancer.

- **Eugenic Grounds**
  - Eugenic grounds when ultrasound shows malformed embryo or fetus or there is a substantial risk of the child being born with serious physical or mental abnormalities.

- **Humanitarian Grounds**
  - Humanitarian grounds when the pregnancy is caused by rape or incest.
- **Social Grounds**
  - Social grounds when: (i) in the actual or reasonably foreseeable future, her environment (social or economic) might lead to risk of injury to her health or (ii) pregnancy resulting from failure of contraceptive device or method.

- ❖ Sex selection is not a legal ground for MTP
- ❖ The indication should be clearly stated in the opinion form
- ❖ The opinion of the provider is adequate to certify ground/s for providing abortion services

Who can perform MTP?

- An RMP whose name is registered in the state medical register with experience in OBG for atleast 3 years (before the ACT).

- After the ACT,
  - Completed 6 months of House Surgeoncy in OBG
  - Experience in any hospital not less than 1 year in OBG
  - Post graduate degree/ Diploma in OBG
  - Assisted an RMP in performing atleast 25 cases of which 5 independently conducted, in a govt. hospital or training centre approved by the govt. for the same

Where can MTP be performed?

- Only in a hospital established and maintained by the government or in a place recognized and approved by the government for this purpose.

Implications of MTP Act

- In countries with liberal abortion laws, maternal morbidity and mortality have declined, and women have been motivated to accept birth control measures.

- Deaths due to illegal abortions (500 per 1 lakh) are due to haemorrhage (20%), sepsis and embolism (20–25%), anaemia and gut injury. Mortality and morbidity increases with each week of gestation, and is fivefold to tenfold in the second trimester as compared to the first.

- Repeated abortions are not conducive to a woman’s health, hence, MTP should not be considered as a birth control measure and should not replace prevailing methods of contraception.
- Even in the best of circumstances, there is a small inherent risk in the procedure of MTP. This should serve as a warning that MTP can never be as safe as efficient contraception.
- The woman undergoing MTP should be educated to accept contraception. Thus, MTP can indirectly promote family planning and population control.

1st & 2nd Trimester MTP

Counselling

- **Pre-procedure counselling:**
  - Choice of procedure
  - Consent
  - Complications and warning signs
  - Need for follow up
- **Post-procedure counselling**
  - Regarding return of fertility
  - Regarding methods of contraception

Clinical assessment

- Ascertain pregnancy by pregnancy test & bimanual examination
- Assess gestational age from LMP and bimanual examination
- USG not mandatory. USG in case of doubt & to rule out ectopic pregnancy
- Local infection to be treated
- CVS & other systems to be checked
- Investigations: Hb, URE, Blood grouping + Rh typing

Role of USG in MTP

- To assess gestational age when dates are not correct
- To rule out ectopic gestation
- Detection of fibroids & uterine anomalies
- To rule out multiple pregnancy, vesicular mole
- During evacuation to ensure completeness
- To diagnose retained products

Documentation

1. Form C - Consent form
2. Form I – RMP Opinion Form
3. Form II – Monthly reporting form (to be sent to district authorities)
4. Form III – Admission register for case record

1st Trimester MTP

Procedures:

SURGICAL METHODS

- VACUUM ASPIRATION
  - Manual vacuum aspiration
  - Electric vacuum aspiration

MEDICAL METHODS

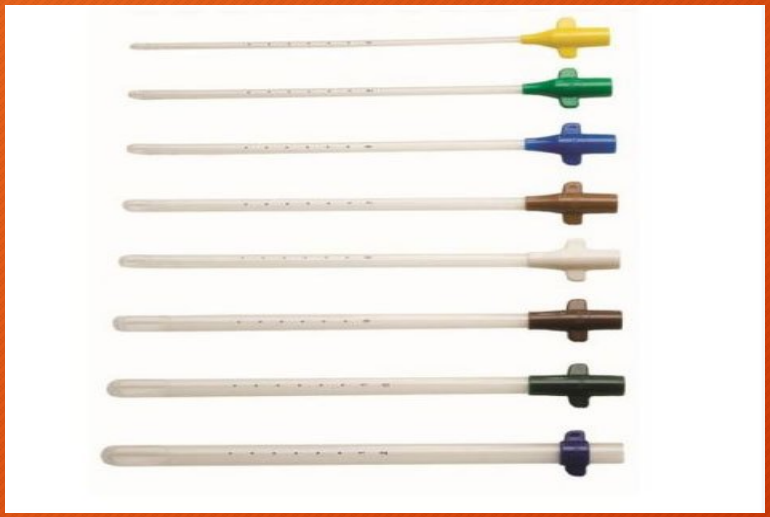
- Mifepristone + Misoprostol

SURGICAL METHODS- VACUUM ASPIRATION

- Evacuation of POC using a plastic/metal cannula connected to a vacuum source
- Can be used for gestational age up to 12 weeks
- Can be:
  1. Manual vacuum aspiration
  2. Electric vacuum aspiration

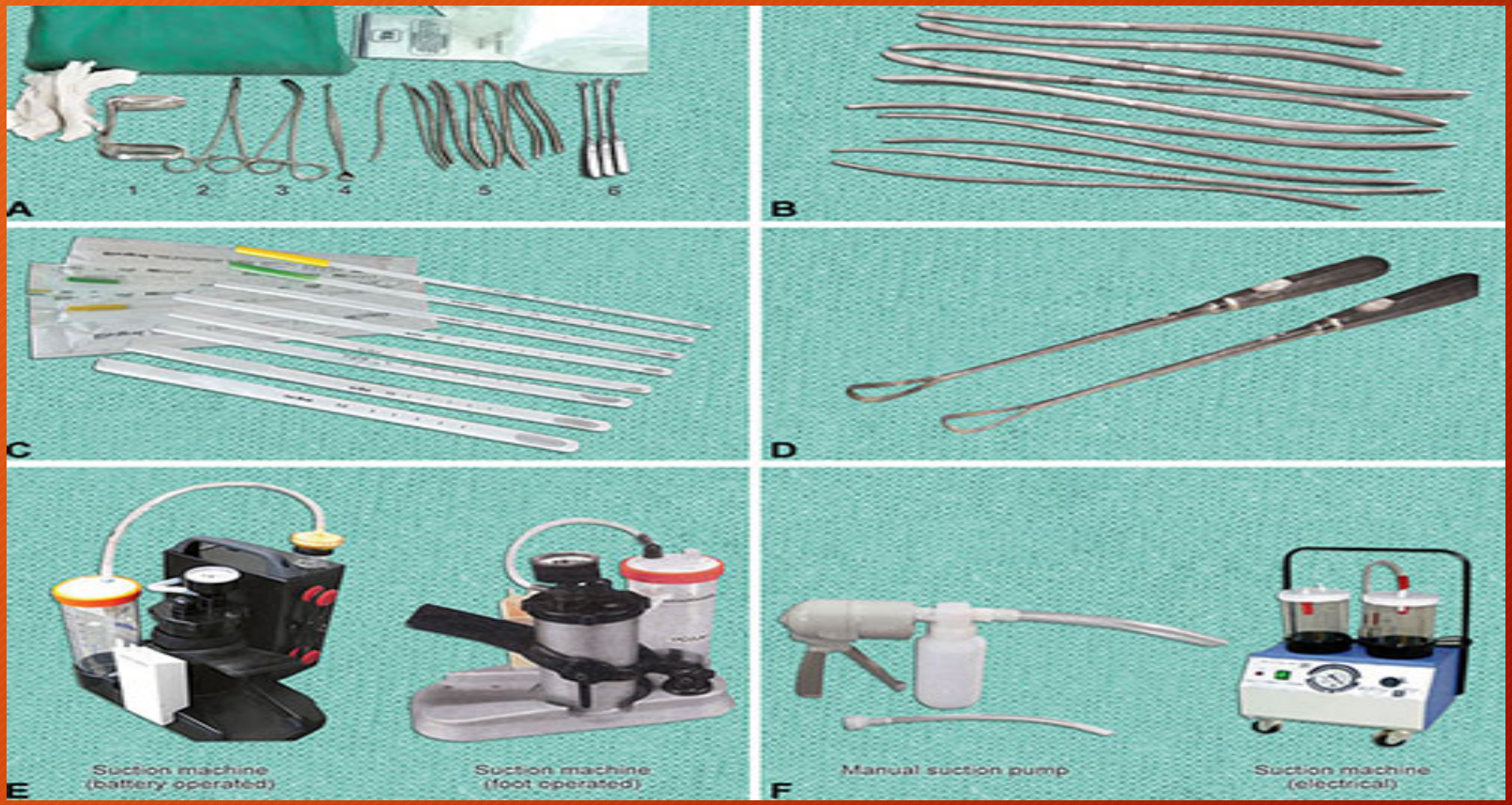
1. Manual vacuum aspiration

- Karman’s cannula of different sizes



- Manual vacuum aspirator(60cc, ~65cm of Hg)

2. Electric vacuum aspiration/ suction evacuation



Selection of cannula size

- Usually corresponds to the gestational age in weeks

UTERINE SIZE	PREFERRED CANNULA SIZE
4-6 weeks LMP	4-6 mm
7-9 weeks LMP	6-10 mm
9-12 weeks LMP	8-12 mm

Anaesthesia

- The operation can be generally undertaken under local anaesthetic, paracervical block, coupled with some sedation if necessary.

- Apprehensive patients may need general anaesthesia.

Cervical Priming

- May be needed in:
  - Nullipara
  - Previous CS
  - Adolescent
  - >9 weeks

Misoprostol 400mcg S/L 2-3hrs prior or P/V 3-4hrs prior

OR

PGF2α 250mcg IM 45 minutes prior

Procedure

- Patient asked to pass urine.
- Position- dorsal position or lithotomy position.
- Examination of the patient in the operation theatre observing full aseptic precautions. The gestation size and the position of the uterus are carefully assessed.
- After administering a paracervical block, the cervix is held with an Allis/volsellum/sponge-holding forceps.
- If dilatation is not satisfactory, serial dilatation done.

- Introduction of the suction cannula of the appropriate size (diameter corresponding to the weeks of gestation) into the uterine cavity.
- A standard negative suction of 650 mm (65 cm) of Hg is applied and the products are aspirated.
- When the procedure is completed, a grating sensation is felt all around the uterine cavity, no further tissue is aspirated, and the inter- nal os begins to grip the Karman cannula which reveals a blood-stained froth.
- There is no need to follow this up with a check curettage with a sharp curette, as this step can be traumatic and lead to complications like perforation, synechiae (Asherman syndrome), and predispose to placenta accreta in a future pregnancy.

- Antibiotics not given routinely- maybe given when procedure is prolonged or local infections present(ideally to be treated pre-procedure)
- Anti-spasmodics can be given for cramping
- Anti-D must be given to Rh negative non-immunized mother
- Oral contraceptives can be started soon after the procedure or an IUCD can be inserted at the time of procedure
- If the couple do not want any more children, sterilization is an option and can be combined with the abortion
- Follow up visit at 6 weeks- contraceptive compliance should be ensured. She should have resumed her menses by then

Advantages of vacuum aspiration

- Compared to D&C, less incidence of excessive bleeding & uterine perforation
- Lesser dilatation
- Lesser pain medication
- Recovery faster
- Less hospital stay
- Products obtained can be sent for HPE and karyotyping(if needed)

Warning signs following procedure

- Excessive bleeding
- Dizziness
- Shortness of breath
- Severe abdominal pain
- Prolonged cramping
- Fever

Complications of surgical procedure

- **Due to anaesthesia**

- **Due to procedure**
  - Haemorrhage
  - Uterine perforation
  - Syncopal attacks
  - Incomplete evacuation
  - Continuation of pregnancy
  - Infection

- **Remote complications**
  - Infertility
  - Menstrual disturbances
  - Recurrent miscarriage
  - Ectopic pregnancy
  - Asherman’s syndrome
  - Obstetric complications- rupture, placenta accrete, Rh isoimmunization
  - Psychological aftermath

MEDICAL METHODS

- Combination of drugs used to induce and complete the process of abortion
- Mifepristone + Misoprostol
- **Mifepristone (RU 486)**
  - Antiprogestin
  - Causes decrease in hCG and a withdrawal of support from corpus luteum
  - Causes necrosis & detachment of products
  - Sensitises to the action of prostaglandins

- **Misoprostol (PGE1)**
  - Induces cervical ripening and strong uterine contractions
  - Causes expulsion of products
  - Stable at room temperature
  - Absorbed from the GI and vaginal mucosa
  - Selective on PGE1 receptors, so no action on bronchial and vascular smooth muscles, hence no serious side effects
- Up to 7 weeks- can administer as OP
- 7-9 weeks- at a centre with facilities, and approved for MTP by District Level Committee, CMO
- 9-12 weeks- IP facility, same method followed

Pre-requisites for OP basis medical management

- GA- up to 7 weeks
- Minimum 3 visits- D1,D3 and D15
- Should understand instructions clearly
- Compliant for follow-up and willing to undergo surgical evacuation if bleeding is excessive
- Lives near a medical facility

Medical method

- **Day 1:** mifepristone 200mcg p/o
  Anti D 50 mcg for Rh negative women
- **Day 3:** misoprostol 400 mcg p/o or p/v
- **Day 15:** USG to rule out retained products of conception(RPOC)
  Suction evacuation if RPOC present

MTP- Medical (7-9 weeks)

- Directorate General of Health Services approval

- Combipack:
- Tab. Mifepristone 200mcg p/o and 800mcg misoprostol

Contraindications for medical management

- Confirmed or suspected ectopic pregnancy, or undiagnosed adnexal mass
- Hb < 8gm%
- BP >/= 160/100 mm Hg
- CVS diseases
- Coagulopathy, on coagulants
- Uncontrolled seizures
- Chronic adrenal failure, long term use of systemic steroids
- Renal or liver diseases
- Glaucoma, porphyria
- Psychosocial conditions where patient is non-compliant

Safety and efficacy of MMA

- Success rates: 95-98% (up to 7 weeks)
- Surgical evacuation in 1%
- Failure to abort in 1%
- Excessive bleeding requiring blood transfusion in 1-2/1000
- Incomplete abortion requiring surgical evacuation in 2-3%

Advantages of MMA

- Can be offered at earlier gestations
- More privacy
- Minimal technical assistance
- No instrumentation or anaesthesia required
- Less invasive
- No impact on future pregnancy

Disadvantages of MMA

- Minimum 3 visits required
- Unpredictable outcome in few percentages
- Longer period taken for abortion (mean:9.6 days)
- Adverse effects of the drugs used
- Risk of fetal malformations if pregnancy continues (Moebius syndrome- misprostol)

Warning signs

- Persistent or intermittent heavy bleeding
- Purulent/ foul- smelling vaginal discharge
- Fever with chills
- Giddiness with syncopal attacks
- Sever abdominal pain

Adjunct medications

- Antibiotics- not routinely indicated.
- Nullipara and those with vaginal infection – doxycycline 100mg BD x 8 days
- Analgesics
- Anti-emetics, anti-diarrhoeal

2nd Trimester MTP

SURGICAL METHODS

- DILATATION & EVACUATION
- SUCTION EVACUATION
- HYSTEROTOMY

MEDICAL METHODS

MIFEPRISTONE + MISOPROSTOL

MEDICAL METHODS

- Written consent
- General physical and pelvic examination done
- USG
- Contraindications same as that for 1st trimester
- Anti-D 300mcg for Rh negative women

Medical method- Dosage

- **Day 1:** Mifepristone 200mcg p/o
- **36-48 hours later:** Misoprostol 400mcg p/o or s/l or vaginal, every 3-6 hours for maximum of 5 doses
  - Before 18 weeks – every 3-4 hours
  - After 18 weeks – every 6 hours preferred
  - Scarred uterus- low doses preferred
- Record vitals every 4 hours, when contractions start every 2 hours
- If mifepristone not available, misoprostol alone can also be used

SURGICAL METHODS

- Counselling
- Clinical assessment, 13-16 weeks
- Requires special training
- Vacuum aspiration + evacuation using sponge holder or ovum forceps
- Less used- because medical methods available
- Complications- trauma, hemorrhage, uterine perforation, infection
- Hysterotomy should be the last resort

Thank you…