

## CHAPTER 2

### Instruments In MTP and Female Sterilisation

In this section we will deal with instruments used in Medical termination of pregnancy and female sterilization.

#### 2.1: MTP (Karman's) Cannula

Karman's Cannula is a soft, flexible plastic cannula (or curette) used in medical procedures especially in MTPs with MVA aspirator or EVA machine for suction evacuation.

It derived its name from Harvey Karman in the early 1970s.

They are single use disposable cannulas.

**Use:** surgical MTP, incomplete abortion, hydatidiform mole

#### **Description:**

Distal end is coned with two large lateral eyes to facilitates the curette.

It has a universal adopter for connecting to suction apparatus.

Specially designed for aseptic medical termination of pregnancy.

Suitable for use with MTP syringe or suction apparatus.

Sterile / Disposable / Individually packed.

They come in various sizes ranging from 5 to 12 mm , size is selected depending upon the size of pregnant uterus. The base of the cannulas are colour coded for different sizes.

Colour Code	Grey	Orange	Red	Green	Blue	Dark Blue
Size	5 mm	6 mm	7 mm	8 mm	10 mm	12 mm

During aspiration, the tip of the cannula having hole should be kept just beyond the internal os and suction should be done with rotatory movement of the cannula.

The completion of procedure is indicated by

1. Absence of any further products of conception seen in the tubing
2. Gripping of cervix over the tip of the cannula
3. Bubbles are seen in the cannula.

**Advantages:** It is soft cannula so causes less trauma .



Fig 2.1: Set of colour coded Karman's cannula

## 2.2: MVA syringe

**Description:** MVA Syringe is a handheld plastic aspirator (MVA aspirator/syringe).

**Use:** Surgical MTP till 12 to 13 weeks of gestation, incomplete abortion.

On drawing the plunger handle out, a vacuum gets created to suck out the uterine contents.

**Advantages:**

No need of electricity.

Safe and effective.

The products collected in the syringe are available for inspection and histopathological examination.

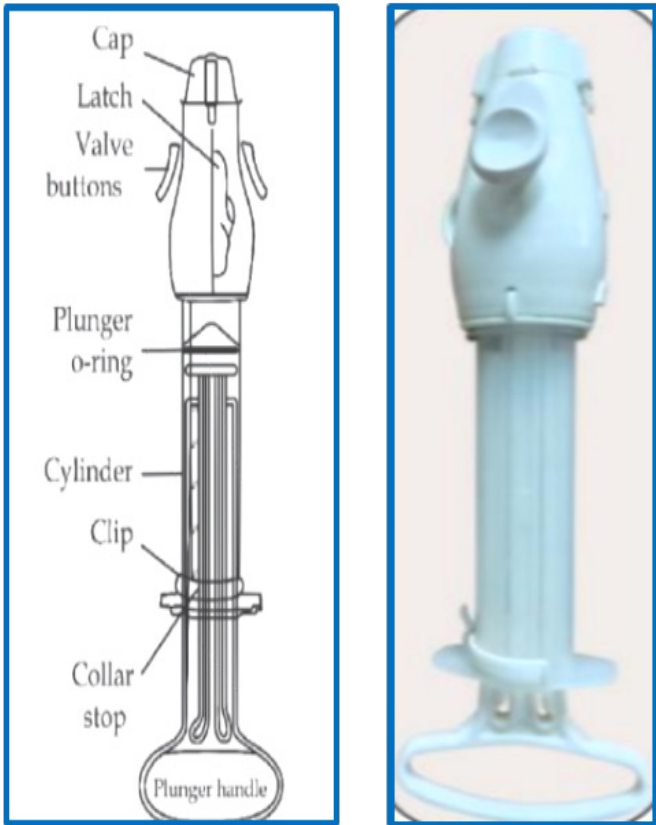


Fig 2.2: Manual vaccum aspirator (MVA Syringe)

### 2.3: SINGLE PUNCTURE LAPAROSCOPE FOR TUBAL LIGATION:

**Description:** It has a zero degree telescope with parallel/straight eye piece. It incorporates 10 to 12 mm diameter Fibre optic light transmission.

Can be sterilised by autoclaving cidex solutions and Formalin Chamber. It has a 6 mm instrument channel/built-in ring applicator Working length of 270-275 mm

**Use:** Used for laparoscopic female sterilisation (tubal ligation)



Fig 2.3: Single puncture laparoscope/ telescope

### 1. Falope ring applicator

The applicator has a pair of prongs which when drawn out of the the cylindrical body ,hold the rings and draws in a segment of fallopian tube in a loop shape manner and then releases the ring which constricts the base of this loop

It has a ring selection collar at the proximal end which is marked at 0,1,2.It is set at "0" when ring is roaded,1 and 2 positions if 1st and 2<sup>nd</sup> ring needs to be fired respectively if 2 rings are loaded simultaneously.

The cones and loader are used to load the falope rings on to the inner cylinder of the assembly.

**Use:** It is used during laparoscopic surgeries or with single punctute laparoscope to ligate the fallopian tubes with falope rings.

**Advantages:** Compared to other methods like electrocautery ,the falope ring technique offers advantage of reduced tissue damage and better chances of tubal renanlisation if needed in future.

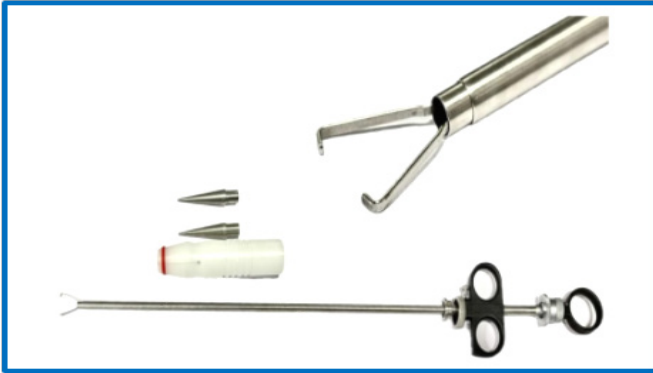


Fig 2.4: Single puncture ring applicator with a) Cones, b) Pusher, c) prongs drawn out of the ring applicator/laprocator

### 2.5: Fallope rings:

Fallope rings are small rings made of sialistic which are used in laparoscopic female sterilisation as mentioned above.

They have a memory time of 5 minutes so they should be loaded onto the ring applicator only once surgeon has identifies both the tubes and is ready for the procedure.

The ring's outer diameter is 3.6 mm, inner diameter is 1.0 mm, approximately 2.2 mm thick. The ring is made of a barium sulfate impregnated dimethypolysiloxane, which allows its visibility on X ray.

**Advantages:** they are visible on X ray so can be used to confirm tubal ligation



Fig 2.5: Fallope rings for tubal ligation