Transcript

Slide 1: This is a short tutorial about surgical instruments used in obstetrics and gynaecology.

Slide 2: Forceps are used to grasp tissue edges. They can be toothed or non-toothed, fine or robust and can vary in their length.

In general, only non-toothed forceps which are less traumatic are used inside the peritoneal cavity.

Fine toothed forceps are usually used for picking up skin edges during skin closure or manipulating the needle. Grasped between thumb and forefinger in a pincer grip usually with the left hand, you will often use these to manipulate the needle and grasp tissue edges when suturing.

Slide 3: Needle holders have a clamp mechanism that locks the needle in place. This allows the user to manoeuvre the needle through various tissues. In order to maintain a firm grip on the needle, the jaws are textured and short compared to the handles.

Slide 4: Tissue-holding forceps are ringed instruments that are used for grasping and retracting tissues. The sharp teeth act as hooks and cause less damage to tissues. They are ratcheted instruments and allow the surgeon or assistant to hold and retract tissues for longer periods of time.

Littlewoods are commonly found on a caesarean section tray where they are used to grasp the rectus sheath to aid dissection and identify edges when suturing the sheath. Such forceps with sharp teeth should not be used inside the peritoneal cavity.

Slide 5: Allis forceps are ratcheted. They have hinged teeth and are used to hold and retract subcuticular tissue. They can be used to hold soft tissues without causing damage for long periods.

A Green Armytage uterine haemostatic forceps are used to hold the incised uterine edges at caesarean section prior to closing the hysterotomy incision. Four are commonly used, one on each side of the uterine incision angle.

Slide 6: Polyp and Rampley sponge forceps do not have sharp hooks or teeth but small transverse grooves. Polyp forceps are used for firmly grasping structures such as uterine polyps and avulsing them at polypectomy. A swab on a stick is provided by wrapping a gauze swab around the Rampley sponge forceps. This is useful for cleaning and prepping the skin, cleaning the paracolic gutters at caesarean section and for gently manipulating bowel or dabbing blood without causing tissue damage.
**Slide 7:** Babcocks have atraumatic tips and are useful in holding tissue that can be easily damaged such as fallopian tubes, ovary, bowel and appendix.

**Slide 8:** Retractors are used to hold back the abdominal wall and/or the viscus and can be hand held or self-retaining. The commonly used ones are Doyens, Langenbeck, Morris and the self-retaining Balfour retractor.

**Slide 9:** Doyens are used at caesarean section for retracting the bladder away from the incision site on the uterus and guarding it against potential injury when suturing. They are usually removed prior to delivery of the baby and reinserted after delivery to allow a good view of the lower edge of the hysterotomy.

Langenbeck retractors are light retractors and used to retract skin during closure of the rectus sheath at caesarean section and laparotomy. They can be used in pairs, one in each of the assistant’s hands.

**Slide 10:** The Morris and Balfour retractors are two examples of commonly used retractors in pelvic surgery. The Balfour retractor is self-retaining and need not be held once it is inserted freeing the assistant’s hands.

**Slide 11:** Haemostatic clamps such as Gwilliams and Rogers are often used for hysterectomy. They are sturdy and have atraumatic jaws which allow for minimal tissue trauma. They have serrations and longitudinal grooves which prevents slippage and they come in different lengths to enhance access and exposure.

**Slide 12:** A Kocher’s forceps has a ratcheted handle. It is an artery forcep with curved blades and cross grooves. The tips of the blade have one pair of interlocking sharp teeth.

Spencer Wells forceps are designed to compress arteries and seal small blood vessels. They have strong rigid teeth which improve compression and grip.

**Slide 13:** Scissors are broadly classified into dissecting or suture scissors. Dissecting or tissue-cutting scissors are usually curved and heavy. They are used when a surgeon needs to cut through tough scar tissue. They are inserted with closed blades and gently open to help dissect through anatomical planes.

**Slide 14:** Suture scissors are straight and lighter.

**Slide 15:** Uterine curettes come in different sizes and they may require cervical dilatation for their use. They are used to take an endometrial sample in cases of abnormal vaginal bleeding to remove the decidua, this is named as curettage after evacuation and to remove retained products of conception.
Hegar dilators are used to dilate the cervix enough to pass through other instruments such as a hysteroscope or a suction curette. They can be double-ended or single-ended.

**Slide 16:** The uterine sound is used to measure the length of the uterine cavity, to know the position and direction of the uterus in case of retroversion and to measure the length of the cervical canal.

Vulsellum forceps, these are used to grasp the cervical lips to visualise the cervix or during vaginal hysterectomy. They can also be used to grasp a fibroid polyp. They have a pelvic curve. They can be single-toothed, double-toothed or multiple-toothed.

**Slide 17:** These are other instruments that you may see in use.

The Auvard speculum is a weighted speculum which retracts and holds the posterior vaginal wall without the need for an assistant.

A myoma screw is used at open myomectomy. It screws in a clockwise motion into a fibroid to provide good leverage. It can also be used at hysterectomy.

**Slide 18:** You will now be shown three short clips of a caesarean section, a total abdominal hysterectomy, and part of a laparoscopic procedure.