ynecology books, visit our website **www.jaypeebrothers.com,** for detailed information on obstetrics & gynecology books

2nd Edition

Practical Manual of

OBSTETRICS

OBSTETRICS



Amitava Pal
Rupali Modak

JAYPEE

CONTENTS

1. Specimens **1–36**
- Ectopic Pregnancy 1
- Rupture of Uterus 11
- Hydatidiform Mole 16
- Placenta with Umbilical Cord 24
- Anencephaly 32

2. Instruments and Drugs **37**
- Sponge-holding Forceps 37
- Kocher's Artery Forceps or Clamps 38
- Allis Tissue Forceps 39
- Green-Armytage Hemostatic Forceps 40
- Simple Rubber Catheter and Foley's Catheter 41
- Drew Smythe Catheter 44
- Sim's Double-bladed Posterior Vaginal Speculum 44
- Vulsellum 47
- Uterine Sound 48
- Cervical Dilators 50
- Hegar's Dilators 51
- Hawkins-Ambler's Dilators 51
- Uterine Curette (Flushing) 52
- Ovum Forceps 54
- Karman's Plastic Cannula 55
- Abdominal Retractors 55
- Pinard's Metal Fetoscope 56
- Mucus Sucker 58
- Umbilical Cord Scissors with Disposable Umbilical Cord Clips 61
- Blunt Hook and Crochet 62
- Lumbar Puncture Needle 62
- Drugs in Obstetrics 65
- Antihypertensives 67
- Labetalol 67
- Hydralazine Hydrochloride (Drangeen) 68
- Other Drugs 74
- Corticosteroids 76

3. Obstetric Operations and Interventions **78**
- Cesarean Section 78
- Episiotomy 86
- Dilatation and Evacuation/Suction and Evacuation 92
- Destructive Operations 95
- Instruments for Decapitation 99
- Surgical Management of PPH 101
- Obstetric Forceps 108
- Ventouse 118
- Version 123
- Other Operations 126

4. Maternal Pelvis and Fetal Skull **142**

- Pelvis 142
- Fetal Skull 149

5. Normal Labor and Labor in Malposition and Presentation 158
- Flying Questions on Normal Labor 162
- Programmed Labor 167
- Labor in Abnormal Presentation: Face 174
- Brow Presentation 176
- Breech Presentation 177
- Cord Prolapse 189
- Compound Presentation 190

6. Assessment of Fetal Well-being 194
- Daily Fetal Movement Count 194
- Fetal Heart Rate Monitoring 194
- Fetal Distress and Monitor 195
- Classification, Causes and Mechanism of Fetal Heart Rate Pattern 196
- Antepartum Fetal Surveillance 205
- Examples of Some Abnormal Fetal Heart Rate Baseline 207
- Fetal Heart Rate Deceleration 209
- Fetal ECG Waveform Analysis (ST Analyzer—STAN) 211

7. Partograph 213

8. Ultrasonography in Obstetrics 223
- First Trimester Pregnancy Problems 226
- Pregnancy of Unknown Location 229
- USG in Second and Third Trimester 231
- Ultrasonography Doppler 240
- Questions on Doppler in Fetal Hypoxia 241
- Role of Doppler in Pregnancy 243

9. X-ray in Obstetrics 247
- Breech Presentation 247
- Hydrocephalus 250
- Transverse Lie 252
- Anencephaly 255
- Multiple Pregnancy 257
- Conjoined Twins 262
- Intrauterine Fetal Death 263

10. Obstetric Cases 267
- History Taking 267
- Chief Complaints in Chronological Order 267
- Normal Pregnancy at Term 278
- Case Discussion on Rh-negative Mother 291
- Primigravida with Floating Head 303
- A Case of Multiple Pregnancy 311
- Postdated Pregnancy 323
- Puerperium 329
- A Case of Anemia in Pregnancy 343
- Post-cesarean Section Pregnancy 352
- Antepartum Hemorrhage 359
- Abruptio Placentae 367
- A Case of Pre-eclampsia 374
- A Case of HIV in Pregnancy 397
- Intrauterine Growth Restriction 412
- A Case of Pregnancy with Diabetes 420

- A Case of Heart Disease in Pregnancy 432
- Jaundice in Pregnancy 444
- Recurrent Pregnancy Loss 453
- Epilepsy in Pregnancy 462
- Thyroid Disorder in Pregnancy 467
- Hypothyroidism 468
- Hyperthyroidism in Pregnancy 472
- Obesity and Pregnancy 475
- A Case of Beta Thalassemia and Pregnancy 479

11. Flying Questions **484**

- Liquor Amnii, Hydramnios and Oligohydramnios 484
- Hydramnios 485
- Oligohydramnios or Oligoamnios 487
- Preterm Labor 489
- Chorioamnionitis 493
- Shoulder Dystocia 494
- Induction of Labor 497
- Complications of Third Stage of Labor 505
- Inversion of Uterus 510
- Abortion Problem 512
- Gynecological Disorder in Pregnancy 519
- Hyperemesis Gravidarum 523
- Nonimmune Hydrops Fetalis and Fetal Anemia 525
- Maternal Death 531
- Perinatal Mortality Rate 533

Appendices *535*

- *Appendix 1: Nutrition in Pregnancy 535*
- *Appendix 2: Physiological Changes in Pregnancy and Diagnosis of Pregnancy 542*
- *Appendix 3: Fetal Circulation 550*
- *Appendix 4: Different Types of Female Pelvis 553*

Index *555*

Chapter 3

Obstetric Operations and Interventions

CESAREAN SECTION

Q. What is cesarean section (CS)?

Ans. The delivery of fetus placenta and membrane through an incision in the abdominal and uterine wall after 28 weeks of pregnancy.

Q. What is primary CS?

Ans. The first CS performed on a pregnant mother is known as primary CS.

Q. What is elective CS?

Ans. An elective CS is one, which is performed on a patient before the onset of labor or before the occurrence of any complications.

Q. What are the indications of CS?

Ans. **A. General**

a. Fetal distress in pregnancy and labor
b. Cephalopelvic disproportion (CPD)
c. Post CS pregnancy with non-engaged head
d. Delay in the first stage of labor due to disorder of uterine activity (Uterine dystocia) or non-progress of labor
e. Cord prolapse
f. Severe pre-eclampsia, eclampsia
g. Abruptio placentae where baby is living
h. Failed induction.

Note

Never forget 3Ds: Fetal distress, CPD, uterine dystocia.

B. Elective indications

Placenta previa, previous two CS, intrauterine growth restriction (IUGR), BOH, maternal diabetes, and breech (preterm), post-dated pregnancy, and transverse lie, pregnancy following repair of VVF, oligohydramnios (liquor pocket <1 cm).

Q. What are the different types of anesthesia used for CS?

Ans. Spinal, general anesthesia (GA), epidural (Spinal is the most common in our institution).

Q. What are the complications of spinal anesthesia and how do you manage it?

Ans. a. Hypotension (due to spinal blockade and obstructed venous return due to uterine compression by great vessels);
Treatment: Uterine displacement by left lateral position, intravenous crystalloid hydration, and intravenous injection of ephedrine or phenylephrine
b. High spinal blockade (due to excessive dose of local anesthesia);
Treatment: as before along with effective ventilation by tracheal intubation
c. Spinal headache (due to leakage of CSF);
Treatment: Use of caffeine, which is a cerebral vasoconstrictor for pain relief, and with severe headache an epidural blood patch (10–20 ml of autologeus blood without anticoagulant) in the epidural space at the site of dural puncture is effective
d. Convulsion (due to CSF hypotension);
Treatment as like spinal headache
e. Bladder dysfunction—*treatment* is by catheterization
f. Meningitis/or arachnoiditis—Supportive and antibiotics and physician's opinion.

Q. What are the contraindications to spinal anesthesia?

Ans. a. Refractory maternal hypotension
b. Maternal coagulopathy
c. Thrombocytopenia
d. Patient-getting heparin
e. Untreated maternal bacteremia
f. Skin infection at the site of spinal needle puncture
g. Increased intracranial pressure by mass lesion.

Q. Epidural block is best, why?

Ans. a. Avoids danger of GA
b. Improves uterine retraction
c. Patient is conscious—can see her child
d. Rapid postoperative recovery.

Q. What are the disadvantages of epidural block?

Ans. Time taken—prolonged, total spinal blockade, ineffective analgesia, hypotension, maternal fever and back pain.

Q. When GA is required?

Ans. *Antepartum hemorrhage (APH)*: In placenta previa to avoid hypotension.

Q. What are the different types of CS?

Ans. a. Lower segment cesarean section (LSCS)
b. Classical cesarean section.

Q. What do you mean by lower segment of uterus?

Ans. See preterm labor (Chapter 11).

Q. How do you perform lower segment cesarean section (LSCS)?

Ans. It can be performed either by:

a. Midline subumbilical abdominal incision (Figure 3.1a).
b. Paramedian (right or left) (Figure 3.1b)
c. Transverse suprapubic incision (Pfannenstiel incision) (Figure 3.1c).

Q. What are the steps of LSCS?

Ans. a. Bladder is empty, confirm fetal heart sound (FHS) and take informed consent for operation.
b. Anesthesia—Spinal/epidural/general anesthesia.
c. Dressing with antiseptic lotion and draping.
d. Skin incision (Figure 3.1c)—pfannenstiel incision—3 cm above symphysis pubis in supine position at 15° tilt on left side to prevent supine hypotensive syndrome. The incision should be of adequate width to accommodate delivery (12–15 cm is typical).
e. Incision on rectus sheath, split the muscle in midline and then separate, parietal peritoneum is opened and enter into the abdominal cavity.
f. Introduce Doyen's retractor.
g. Identify the round ligament of uterus on both sides (important) and correct dextrorotation first if required.
h. *Technique*:
   i. The loose uterovesical fold of peritoneum is picked up, cut and pushed down with bladder (not more than 5cm caudally) to expose the lower segment (Figure 3.2A). The bladder is then retracted by Doyen's retractor which was introduced beforehand.

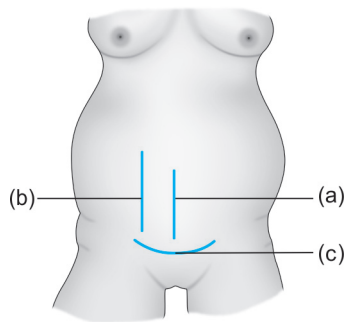
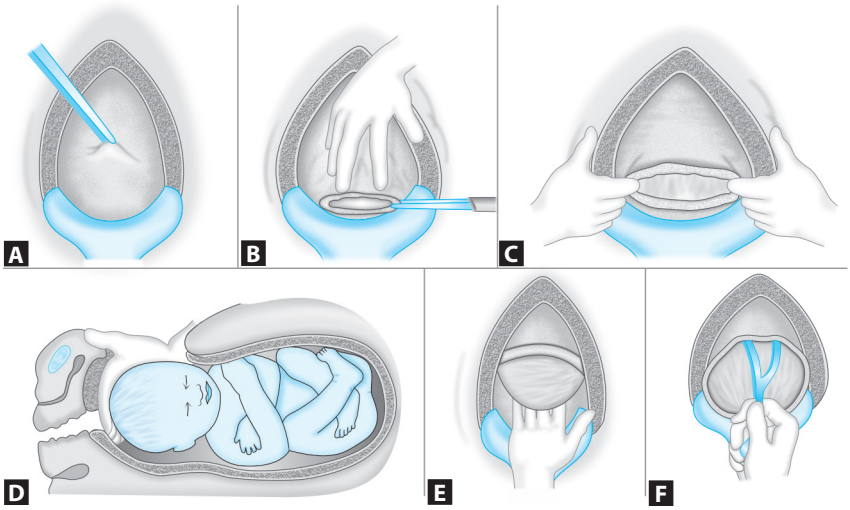


Figure 3.1: Abdominal incisions during cesarean section:
(a) midline subumbilical; (b) right paramedian; (c) Pfannenstiel

   ii. A small nick is made (1–2 cm) through the midline of the lower uterine segment and deepens until membrane protrudes, it should be below the level where the vesicouterine serosa was incised to bring the bladder down (Figure 3.2B).
   iii. The uterine incision is widened with index fingers or make it at least 10 cm by cutting with scissors and then rupture of



Figures 3.2A to F: Steps of lower segment: (A) Loose peritoneum is picked up and cut; (B) Lower segment of uterus is cut; (C) Uterine incision is widened; (D and E) Delivery of head by hand method; (F) Delivery of head by forceps

membrane (Figure 3.2C) is done, to allow delivery of head and trunk of fetus without tearing the lateral uterine margins.

iv. The operator's right hand is passed into the uterine cavity through the incision to lift the baby's head, and Doyen's retractor is taken out while the assistant gives the fundal pressure to push the baby out and suck the baby's mouth and nostrils when it is delivered (Figures 3.2D and E).
v. Sometimes, it is necessary to extract the head by low forceps (Figure 3.2F).
vi. Uterine oxytocics are used after delivery of the baby (confirm no other baby is inside) clamp the cord, cut it in between the clamp and hand over the baby to the pediatrician.
vii. Give a single dose of prophylactic antibiotic after the cord is clamped and cut and keep the gentle traction on the cord and massage the uterus and deliver the placenta and membrane (wait for natural separation of placenta for reduction of bleeding and do not mop vigorously in the uterine cavity, rather examine the placenta to see any missing of cotyledons or membrane).
viii. Uterine incision is repaired in two layers by 1-0 vicryl or catgut by continuous suture excluding the visceral peritoneum.
ix. Peritoneal toileting done.
x. All the bleeding points should be secured meticulously.
xi. Counting of mops and instruments before abdominal closure is essential.
xii. Abdomen is closed in layers.
xiii. Vaginal toileting is done to see the amount of bleeding.

Note

Misgav-Ladach technique is the technique where incision to delivery interval of baby is reduced considerably with minimal use of instruments. Here a Joel-Cohen abdominal incision is made. It is a straight transverse incision (10 cm) through the abdominal skin 3 cm below the level of anterior superior iliac spine. The abdomen is opened by finger separation and stretching. Neither visceral nor parietal peritoneum is closed. Uterus is closed in a single layer by locking continuous suture followed by rectus sheath and skin in the Misgav-Ladach technique.

Classical CS

Longitudinal incision on the upper uterine segment.

Q. What are the indications of classical CS?

Ans. a. Lower segment is not easily approached due to dense adhesion of bladder or presence of fibroid
b. Lower segment is highly vascular due to placenta previa
c. Lower segment is infiltrated with carcinoma cervix
d. Impacted shoulder presentation with drained liquor/back down in transverse lie
e. Conjoined twin
f. Postmortem CS
g. Successful repair of high vesicovaginal fistula (VVF).

Q. What are the techniques of Classical CS?

Ans. a. A midline incision is made through the anterior wall of uterus—the uterine fundus lies above and the reflection of uterovesical fold below
b. As soon as membrane is encountered, it is ruptured
c. The fetal foot is grasped and baby is delivered after version as a breech delivery
d. This is followed by delivery of placenta
e. The wound is closed in three layers:
   i. Close the first layer of deeper uterine muscle excluding decidua by chromic '1-0' catgut or polyglycolic suture material (1-0) continuously.
   ii. Close the second layer of uterine muscle using interrupted 1 chromic catgut (or polyglycolic suture material).
   iii. Close the superficial muscle fibers and serosa using a continuous '0' chromic catgut (or polyglycolic acid suture material) with atraumatic needle.

Problems during Surgery

1. Deeply Engaged Head

a. A deeply engaged head may require to be pushed by an assistant with fingers in the vagina aseptically. The Trendelenberg position of mother is of real help in this case.

b. *Patwardhan's method*: First, one upper limb is delivered followed by opposite upper limb then back is delivered followed by fetal abdomen and lower limbs. The fetal head is lastly delivered. It is possible only when fetal back is anterior and amount of liquor is adequate.

2. Floating Head

Floating head is delivered by forceps, vectis or vacuum. During forceps application, slight fundal pressure helps to push the head towards incision, sagittal suture is placed transversely with the concavity of pelvic curve towards the fetal occiput. Lower blade (left blade) is applied first followed by anterior (right) and fetal head is delivered by controlled extension. The handles of forceps are elevated and mild traction is applied and head is then lifted out of the lower segment of uterus.

3. Baby Breech

- Wide uterine incision is made
- Grasp the foot and deliver it through the incision
- Deliver the legs and body up to the shoulders and then deliver the arms
- *Difficulties in head delivery*: Fetal head is delivered by Mauriceau-Smellie-Veit maneuver or forceps or in further difficulty GA may be required for uterine relaxation; though the operation was started by spinal anesthesia.

4. Lower Uterine Segment is not Well-formed

Cesarean section at 34 weeks (not in labor) or lower uterine segment is very narrow, may need undesirable variations of uterine incisions like:

a. Low vertical cesarean section or Kronig incision (LVCS).
b. J-shaped incision (a transverse low uterine incision passing upwards through one side of the uterus).

Advantage

Apposition is good.

Disadvantage of vertical incision

Low vertical incision may go upwards as in classical CS or may extend downwards involving bladder.

5. Baby Transverse

Baby's back up (near the top of the fundus)—usually, does not need classic incision for delivery

- Introduce the right hand through the uterine incision line and reach up to the fundus and find ankle of the fetus
- Grasp the ankle and gently pull through the incision to deliver the legs and complete the delivery as in breech.

Baby's backdown

- A high vertical uterine incision is the incision of choice
- After the incision, reach into the uterus and find the feet, pull these through the incision and complete the delivery as in breech
- The repair is as in classical CS.

6. Placenta Previa

Anterior placenta previa: Try to incise uterine wall above its margin, but if placenta is on the line of incision cut through it and deliver the fetus and quick cord clamping to prevent unnecessary blood loss from fetus.

a. After delivery, if the placenta cannot be separated manually, the diagnosis is placenta accreta, which is commonly found in previous cesarean section scar, needs cesarean hysterectomy in many cases (Here total hysterectomy is needed as the placenta is low down). Other methods of management of adherent placenta with previous scar are discussed in the case discussion of placenta previa.
b. High risk of postpartum hemorrhage (PPH), so vertical or horizontal compression suture in the lower uterine segment or separate placental bed sutures, tight-packing of lower segment is important before hysterectomy.
c. Classical section may be needed when lower segment is very vascular.

7. Bleeding is not Controlled after Delivery of Baby and Placenta

Take the uterus out of the abdominal cavity and see the bleeding points clearly. Assistant will give temporary pressure on abdominal aorta for reduction of bleeding and suction is used to keep the operative field clear

a. *Extension of incision angle*: Repair it properly, but if fails a subtotal or total hysterectomy is carried out as cervix is not easy to identify. Mobilize the bladder 2 cm below the tear. If possible place a suture 1 cm below the upper end of cervical tear and keep traction on the suture to bring the lower end of the tear into views as the repair continues.
b. *Atonic uterus*:
   i. IV Ringer lactate, oxytocics, blood transfusion
   ii. If fails—B-Lynch suture/uterine and ovarian artery ligation/internal iliac artery ligation of both sides in a step wise manner.
   iii. If all the measure fail—subtotal hysterectomy.

Q. What are the complications of CS?

Ans. Preoperative

a. Anesthetic complications such as hypotension, adult respiratory distress syndrome (ARDS), pulmonary edema.
b. *Hemorrhage*:
   i. Atonic hemorrhage.
   ii. Injury to uterine vessels due to extension of the angles.
   iii. Broad ligament hematoma.
c. Injury to the bladder
d. Injury to the intestine.

Postoperative

a. PPH
b. Paralytic ileus
c. Infection and wound dehiscence.

Q. Advantages of lower transverse or Kerr incision in LSCS.

Ans. a. Less hemorrhage during operation.
b. Easy suturing.
c. Better union as it takes little part in uterine involution.
d. Incidence of scar rupture is less (if it occurs, it will occur during labor).
e. Incidence of placental implantation is less on the lower segment scar when compared to classical CS.
f. Trial of labor may be acceptable.

Note

Tubal ligation (Pomeroy method) may be added to LSCS, if family is completed otherwise insert Cu-T during operation after placental delivery and before closure of uterine incision as a temporary method of contraception. In both the cases prior informed consent of the patient/husband is necessary.

Q. What are the indications of peripartum hysterectomy?

Ans. Peripartum hysterectomy means removal of uterus after vaginal delivery or cesarean section. It may be total or subtotal hysterectomy
a. *Emergency indications:*
   i. Uterine rupture
   ii. Uncontrolled uterine hemorrhage
   iii. Placenta accreta
   iv. Uterine infection
   v. Persistent uterine atony
   vi. Uterine trauma after varieties of obstetric manipulations
   vii. Lateral trauma extension of the lower uterine segment into the uterine artery
b. *Non-emergency indications*: Significant uterine pathology such as
   i. Cervical carcinoma *in situ*
   ii. Uterine leiomyoma.

Q. Which factors increase the risk of cesarean section?

Ans. a. Medical diseases associated with pregnancy such as diabetes, heart disease, severe anemia, jaundice, etc.
b. Pregnancy-associated diseases such as placenta previa, pre-eclampsia, eclampsia.
c. Indications of cesarean section such as obstructed labor, prolonged labor, and prolonged rupture of membrane which increases maternal exhaustion, dehydration, operative morbidity, atonicity of uterus and sepsis.
d. Anesthesia in full stomach just before operation causes aspiration in lung.
e. Hypotension due to spinal/epidural anesthesia, if proper preloading is not performed.

Q. What are the causes of maternal death after cesarean section?

Ans. a. Hemorrhage due to operation (normal blood loss on an average during LSCS is 1000 mL), PPH and rectus sheath hematoma, if remains undetected
b. Shock
c. Sepsis
d. Amniotic fluid embolism
e. Severe reaction due to blood transfusion
f. Coagulation failure
g. Renal failure.

Q. How do you prevent maternal mortality from cesarean section?

Ans. a. Avoid unnecessary cesarean section.
b. Proper selection of patient for elective and emergency operation.
c. Skill of operating surgeon and anesthetist.
d. Detection of high-risk factors in antenatal period and prevention of anemia by prophylactic iron and folic acid.
e. Prevention of postoperative shock—by oxygenation, IV infusion of colloid, crystalloid, blood and blood products.
f. Prevention of infection by prophylactic antibiotics after clamping the cord of baby, because sepsis after cesarean section is very difficult to manage.
g. Judicious blood transfusion after cross matching and proper monitoring during transfusion.
h. Preloading by normal saline before spinal anesthesia to prevent hypotension and its complications such as acute renal failure.
i. Watch of vitals (pulse, respiration rate, temperature, BP, per vaginal or intra-abdominal bleeding, and urine output) every 4 hours for 48 hours after operation.

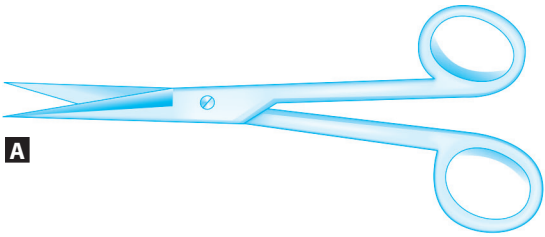
Q. How do you reduce higher cesarean section rate in practice?

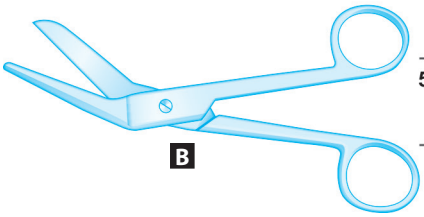
Ans. a. Vaginal birth after cesarean section in non-recurrent indication.
b. Maintenance of partographic chart during active phase of labor.
c. Amnioinfusion in selected cases of PROM.
d. External cephalic version or breech extraction according to the condition during breech delivery.
e. Option of destructive operation in some cases.
f. Liberal use of scalp blood pH when fetal distress is diagnosed by CTG can reduce the cesarean rate.

EPISIOTOMY

Q. What is episiotomy?

Ans. A planned surgical incision on the perineum and posterior vaginal wall in the second stage of labor just prior to crowning of the presenting part to facilitate delivery (Epision= pubic region; tomy= to cut).





54-5526 ROBERTS Episiotomy scissors, serrated blade.
Length 5½" (140 mm)

Figures 3.3A and B: (A) Sharp end scissors; (B) Episiotomy scissors

Q. What are the uses of episiotomy scissors (Figures 3.3A and B)?

Ans. a. For episiotomy/perineotomy
b. For cutting the umbilical cord (most common operation in labor room).

Note

Blunt ended scissors are usually used in episiotomy to avoid injury on rectum.

Q. What are the indications of episiotomy?

Ans. a. Rigid perineum, but not in all cases of primigravida
b. Complicated vaginal delivery (breech, shoulder dystocia, face to pubis delivery)
c. Fetal distress
d. Delivery following repair of CPT
e. In any instrumental delivery.

Note

Episiotomy may cause anal sphincteric dysfunction and incontinence may be due to decreased anal squeeze pressure.

Q. What are the types of incision?

Ans. a. Median—in the middle of the introitus (Start from the mid-point of fourchette/or 6 o'clock position for about 2.5 cm in the midline)
b. Lateral—episiotomy is made at an angle of 90° to the midpoint of fourchette
c. Mediolateral—episiotomy is made at an angle of 45° to the midpoint of fourchette. Scissors are positioned at 5 O'clock or 7 O'clock and incision is extended for 3-5 cm towards ipsilateral ischial tuberocity. This type is most commonly preferred
d. J-shaped—first start from midline and then tilts lateral ward.

Q. What are the advantages and disadvantages of median episiotomy?

Ans. **Advantage:** It heals well, scar tissue formation is less.
Disadvantage: If it extends downwards, then it causes complete perineal tear.

Q. When do you perform episiotomy?

Ans. a. Perineum is thinned out
b. Just before crowning of the head—head does not recede back in between contractions (3–4 cm of head is visible during contraction).

Q. What structures are cut during mediolateral episiotomy?

Ans. a. Posterior vaginal mucosa
b. Superficial and deep perineal muscles
c. A few fibers of levator ani when it is deep
d. Blood vessels and some cutaneous nerves on perineum
e. Fascia and skin.

Note

Muscles attached to perineal body: Paired—Transverse perinea superficialis, Transverse perinea profundus, Levator ani; unpaired—Bulbospongiosus, sphincter ani externus (few fibers). Sphincter urethra membranace.

Obstetrical perineum: It is the space between the vagina and anal canal (size 4 cm × 4 cm).

Q. What is the nerve supply of vulva?

Ans. a. Branches of the pudendal nerve
b. Branches of the posterior femoral cutaneous nerve of thigh
c. Genital branch of genitofemoral nerve
d. Ilioinguinal nerve
e. Inferior hemorrhoidal nerve
f. Perforating cutaneous nerves.

Note

The pudendal nerve (S2, 3, 4) has three branches: the clitorial perineal, and inferior hemorrhoidal that innervate clitoris, perineal muscles, inner perineal skin and external anal sphincter (EAS).

Q. What are the steps of episiotomy?

Ans. Anesthesia
a. Infiltration of local anesthesia (10 mL, 1% lignocaine) along the proposed line of incision. Care should be taken that needle should not be in the vein. Never inject, if blood is aspirated otherwise convulsion and coma of the individual may occur (Figure 3.4).
b. Minimum 2 minutes of time should be allowed.
c. *Technique*:
i. Place the fingers between the baby's head and perineum
ii. Use a pair of scissors to cut the perineum 3 to 4 cm in the mediolateral direction (Figure 3.5)
iii. Incision is made just before crowning, if it is made too early it causes more bleeding

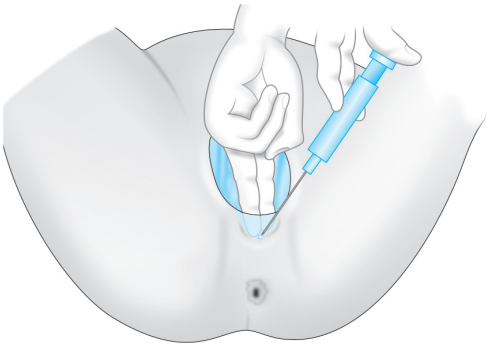


Figure 3.4: Infiltration of perineal tissue with local anesthetic

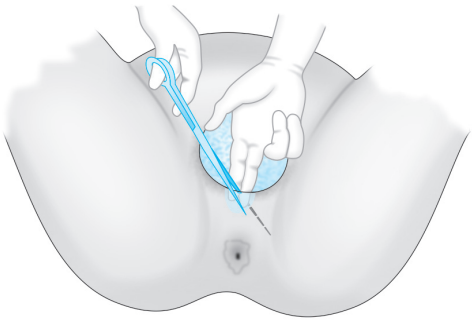


Figure 3.5: Technique of left mediolateral episiotomy

iv. Control the baby's head and shoulders as they deliver ensuring that the shoulders have rotated to the midline to prevent extension of episiotomy.

d. *Repair (Figure 3.6)*:
   i. Close the vagina with 1-0 catgut suture
   ii. Start the repair at about 1 cm above the apex of episiotomy wound because some blood vessels may retract upwards
   iii. Vaginal mucosae—continuous suture up to the level of vaginal opening bringing the points 2a and 2b (Figure 3.6)
   iv. Muscles—close the perineal muscles by interrupted sutures
   v. Perineal skin—closes the skin by interrupted 2-0 absorbable sutures.

Q. Postoperative care of episiotomy wound.

Ans. a. Dressing with antiseptic solution or antibiotic ointment
b. Pain killer orally (NSAID) and local magnesium sulfate compress
c. Ambulation–Allow to move after 12 hours
d. Removal of stitch is not necessary when catgut is used as a suture material.

Q. What are the complications?

Ans. a. Extension of the wound—upwards, downwards leading to hemorrhage

r detailed information on obstetrics & gynecology books, visit our website **www.jaypeebrothers.com,** for detailed inform

Practical Manual of
OBSTETRICS

Salient Features

- A quick revision and bedside guide
- Written to meet the long-standing demand of the students
- Deals with the practical aspects of obstetrics, including specimens, instruments, or operations to identify, investigate, diagnose, and manage common clinical problems
- Presents the maximum text in questions and answers format that are commonly asked in examinations
- Includes essential diagrams, photographs, tables, and flow charts to grasp the subject matter easily
- Emphasizes on four essential attributes like knowledge, skill, experience, and judgment to tackle the different obstetric problems in day-to-day practice
- Helpful for the students who appear in the oral and practical examinations of MBBS, DGO, DNB, MS equivalents of any university as well as for the nursing papers.

Amitava Pal MBBS (Hons) DGO MS DNB FICMCH is a Professor, Department of Obstetrics and Gynecology, Burdwan Medical College, Burdwan, West Bengal, India. He has an excellent teaching experience in obstetrics and gynecology. He is a good academician and clinician too. He is also paper setter and examiner of different universities. He has a lot of publications in many national and international journals. He is the author of the books *Practical Manual of Gynecology* and *Manual of Standard Drugs and Evidence-based Approach to Obstetrics and Gynecology.*



Rupali Modak MBBS (Hons) MD (Gold Medalist) is an Assistant Professor, Department of Obstetrics and Gynecology, RG Kar Medical College, Kolkata, West Bengal, India. She is an excellent teacher, good academician and has excellent expertise in dealing with the clinical cases in the field of obstetrics and gynecology. She is the co-author of the books *Practical Manual of Gynecology* and *Manual of Standard Drugs and Evidence-based Approach to Obstetrics and Gynecology.* She has a lot of publications in many national and international journals.



Available at all medical bookstores
or buy online at www.jaypeebrothers.com

JAYPEE BROTHERS
Medical Publishers (P) Ltd.
www.jaypeebrothers.com

Join us on facebook.com/JaypeeMedicalPublishers

Shelving Recommendation
OBSTETRICS

ISBN 978-93-86150-92-9