

Tears and Hematomas

When things go wrong at delivery



A

FERNANDEZ
HOSPITAL PVT.LTD.

Health Care for Women & the Newborn
www.fernandezhospital.com

VIP, Deluxe Labour Suite

- II stage - 3 hours 15 min
- Forceps delivery at 9 pm
- Girl baby, good Apgar
- Episiotomy sutured
- Extension on the left vaginal wall sutured

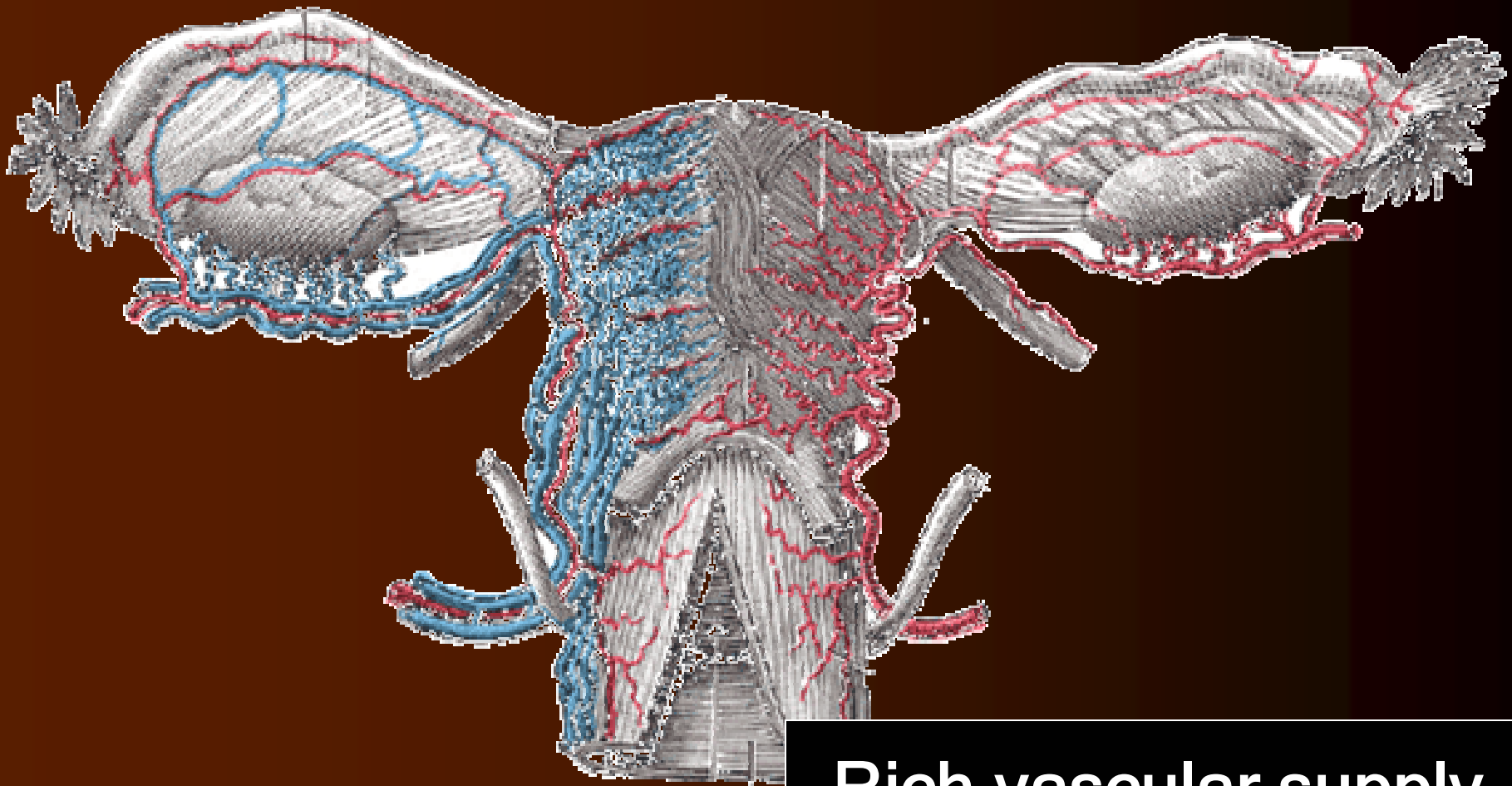
1 am

- Complaints of severe pain
- Tachycardia of 120 / min
- No response to analgesics
- Nurse calls for help



Overview of this Lecture

- Knowledge of anatomy
- Lower genital tract trauma
- Principles of repair
- Practice points



Rich vascular supply

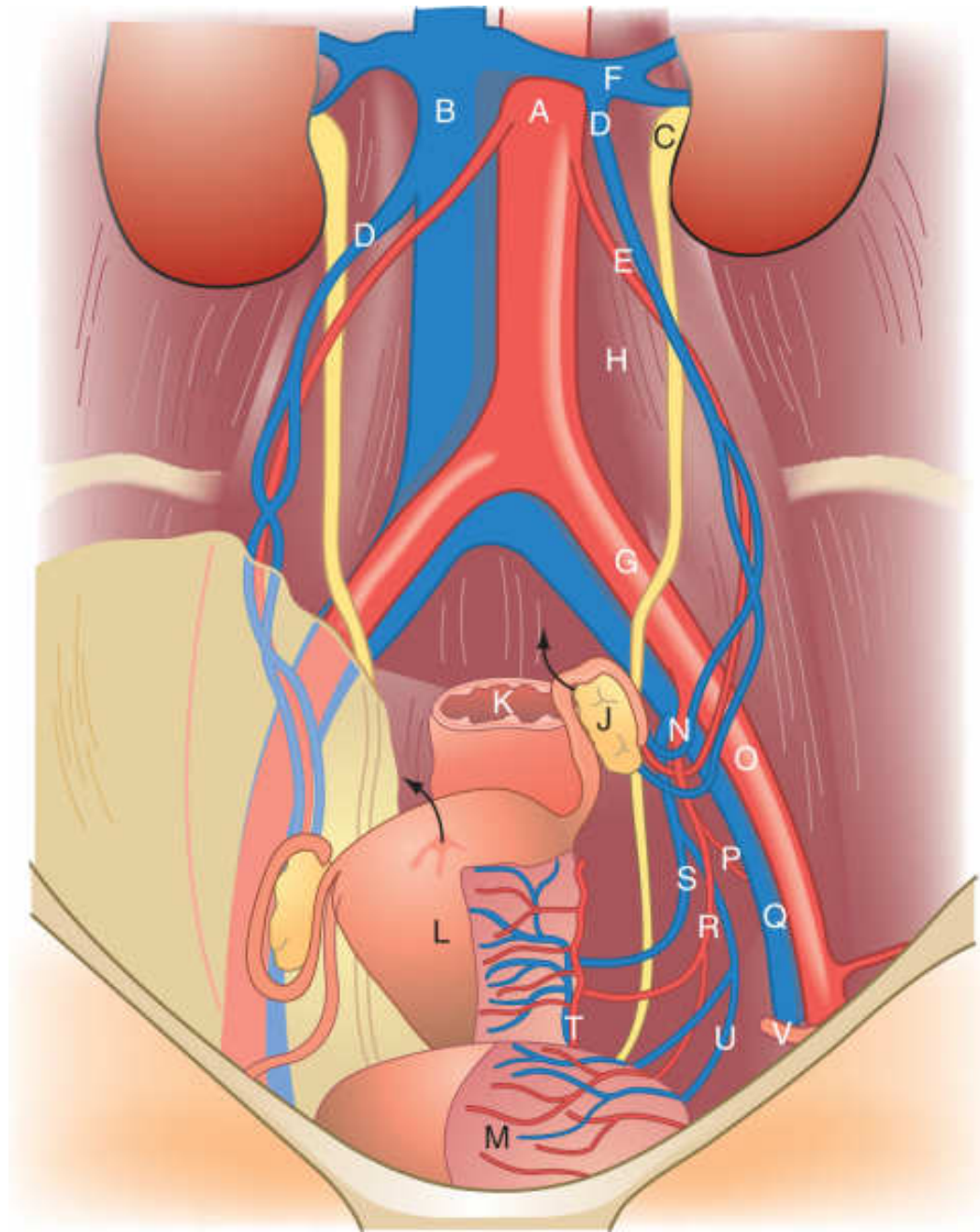
Risk of trauma

Risk of a hematoma

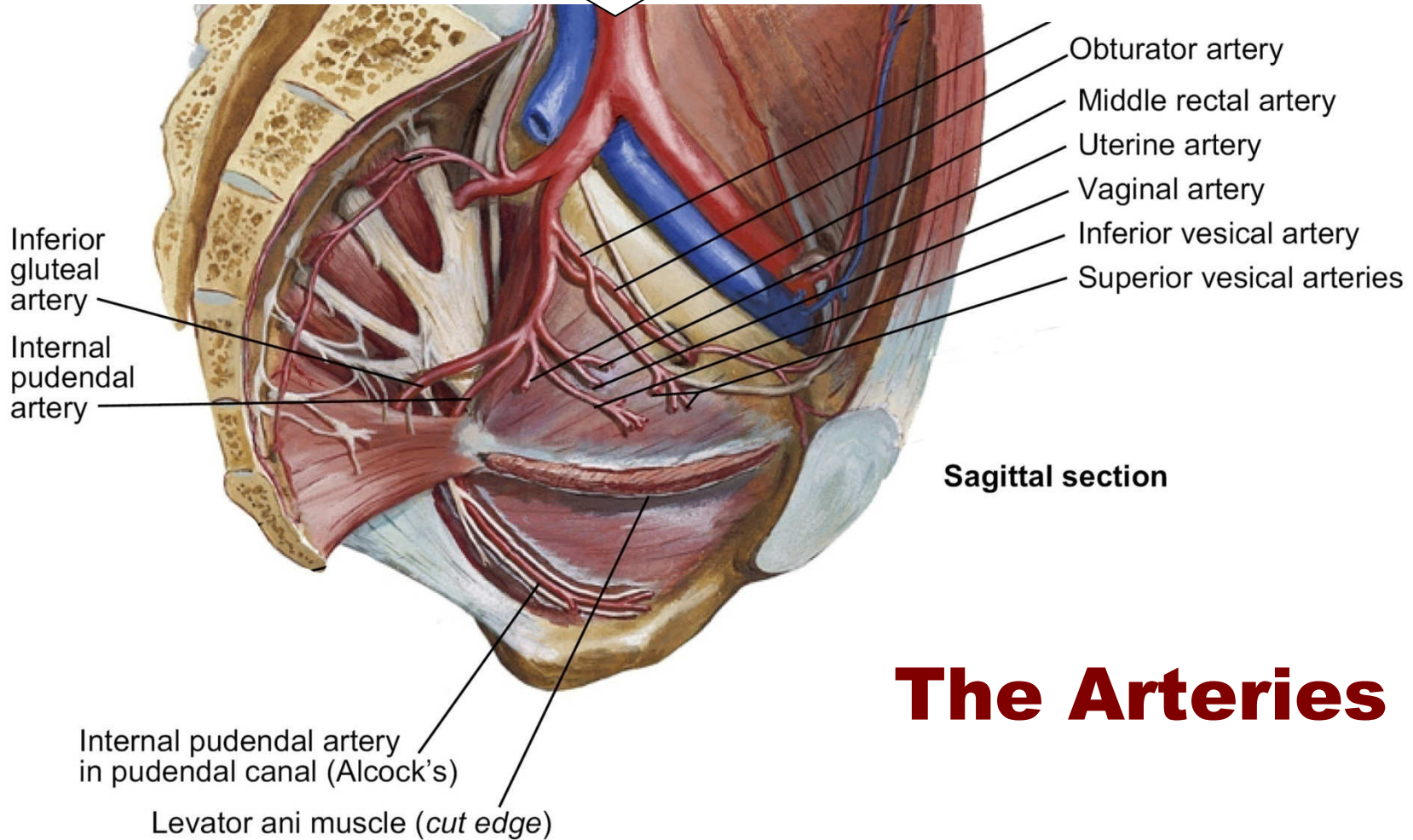
Evidence guides repair after obstetric trauma: episiotomy, sutures

[OB/GYN News, Nov 15, 2003](#) by [Sharon Worcester](#)

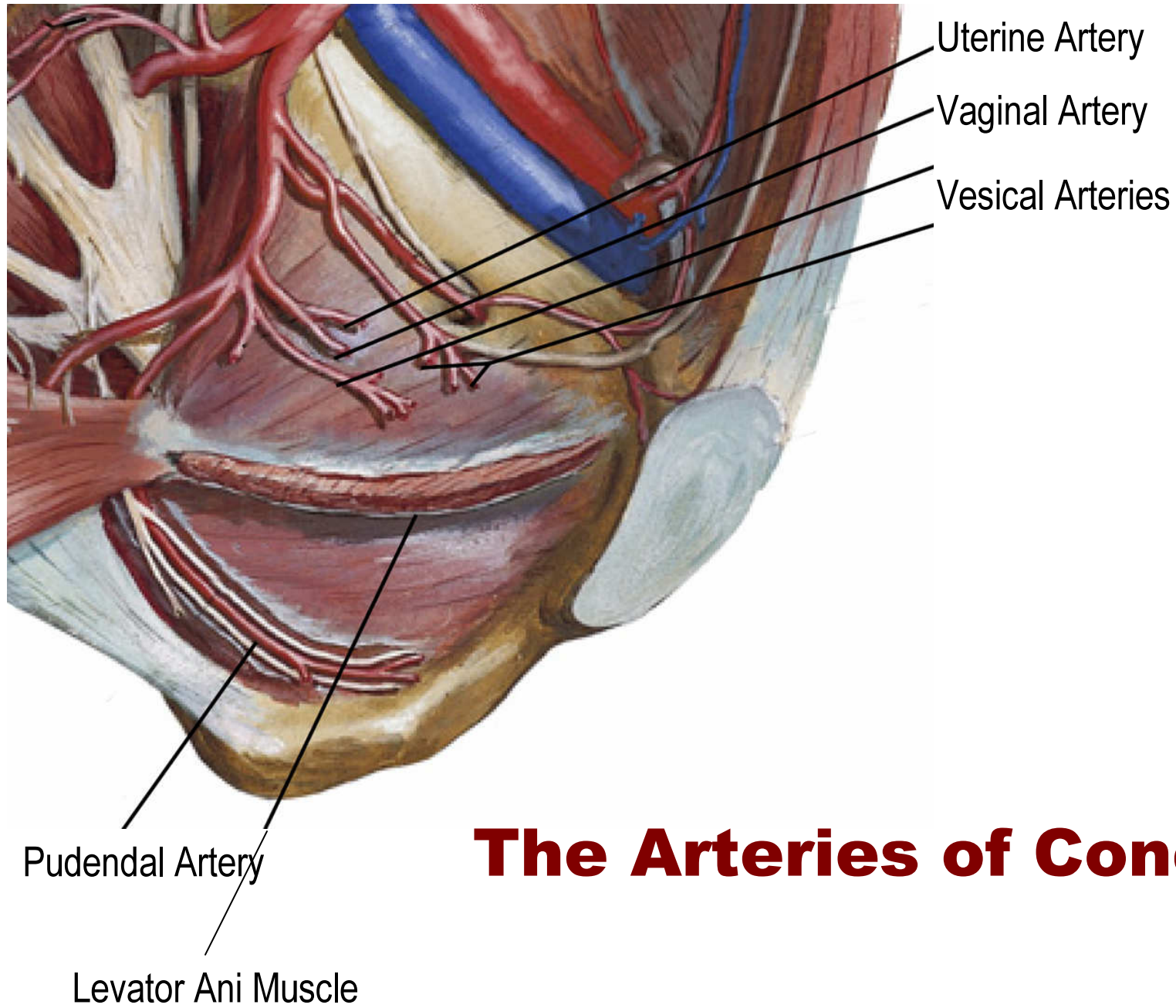
- 85% have genital trauma
- 70% receive sutures
- 40% report pain for at least 10 -12 days
- 10% may have pain up to 18 months



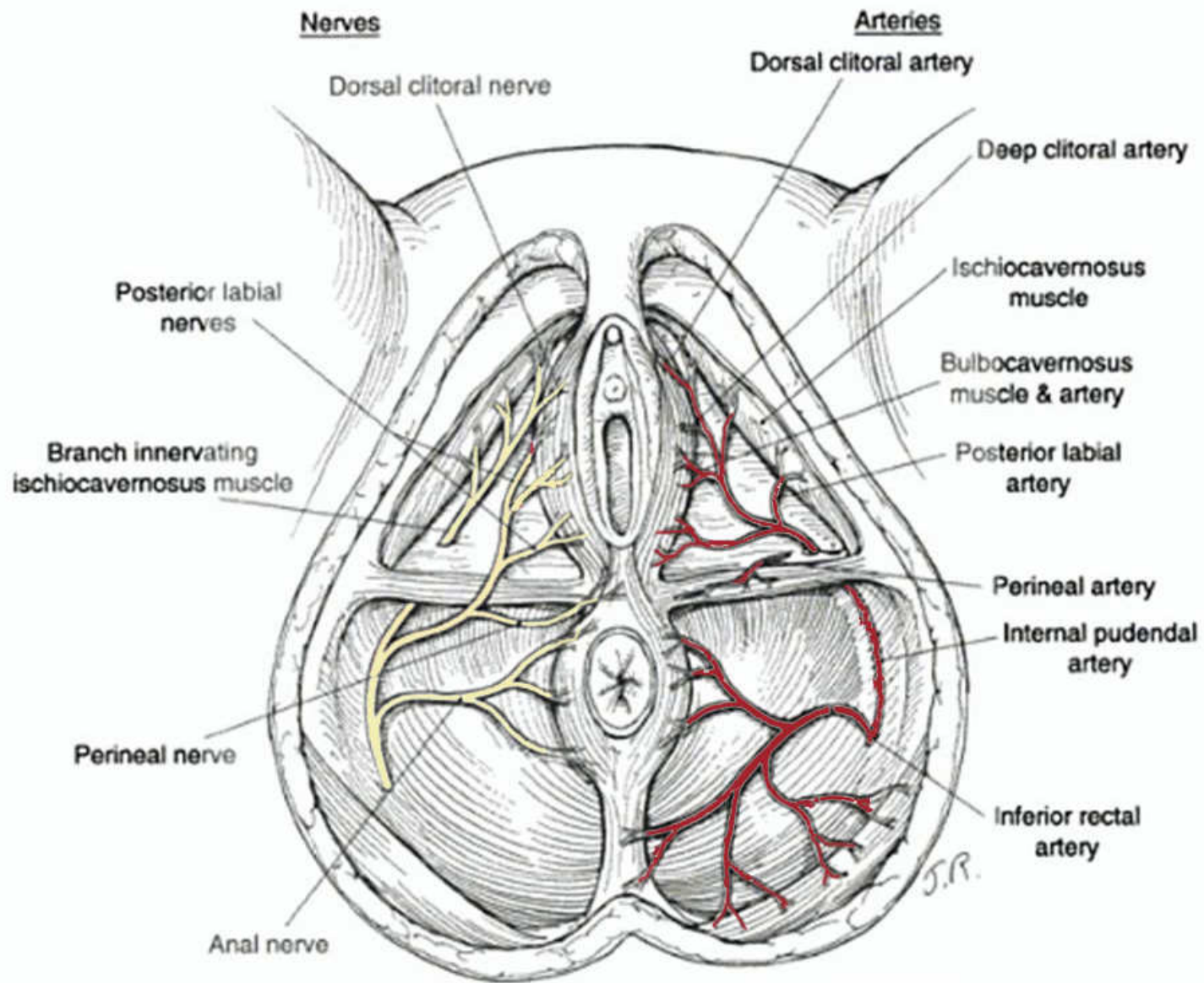
Internal Iliac Artery Branches

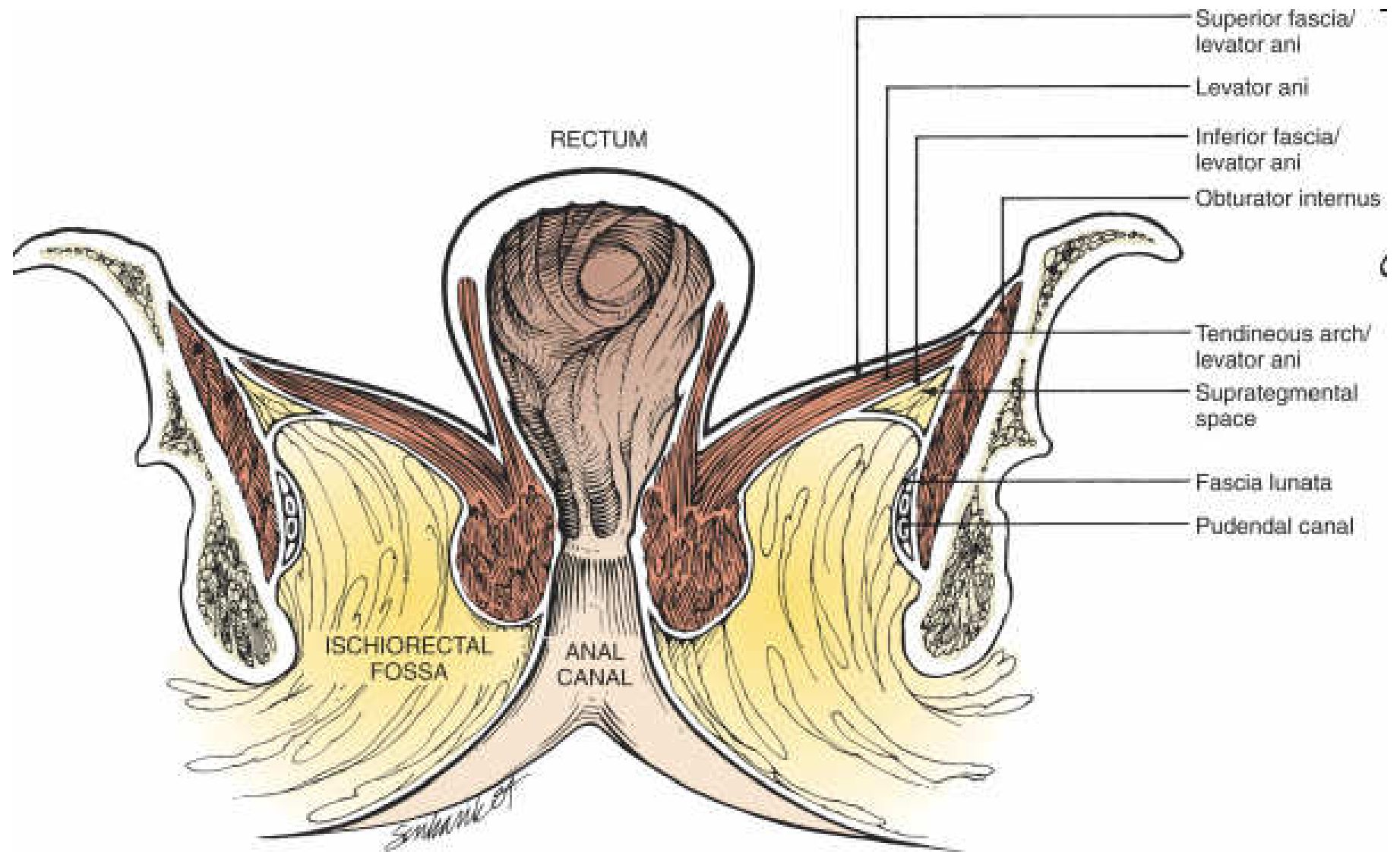


The Arteries



The Arteries of Concern

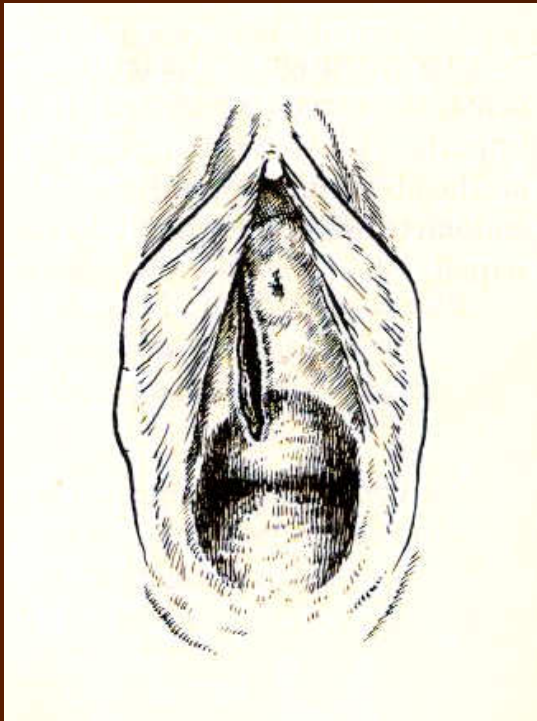




Obstetric Lacerations / Injuries

- **Perineum: tear or episiotomy wound**
- **Vulva: tears or a hematoma**
- **Vagina: lacerations or hematoma**
- **Cervix: lacerations / tear**
- **Uterus: rupture or inversion**

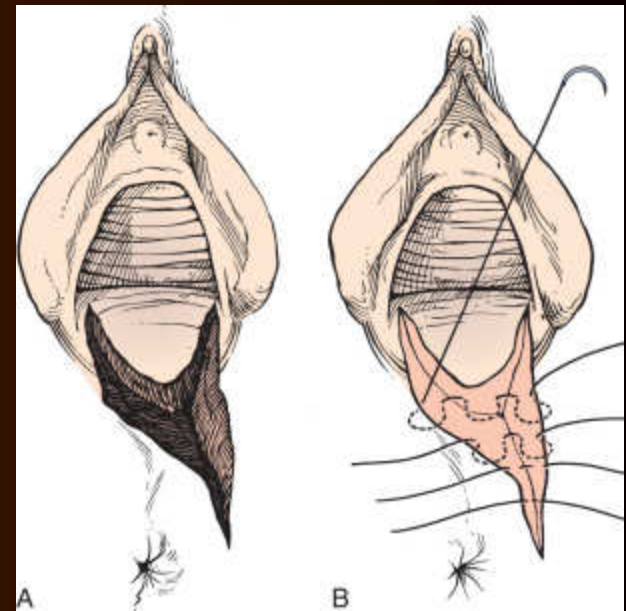
Periurethral & Periclitoral Lacerations



- Common without episiotomy
- Pressure - hemostasis
- Fine sutures - 3'0
- Urethral catheter placement

Vaginal Lacerations

- Common lower 2/3 of vagina
- Postero - lateral
- Extension of episiotomy
- Forceps



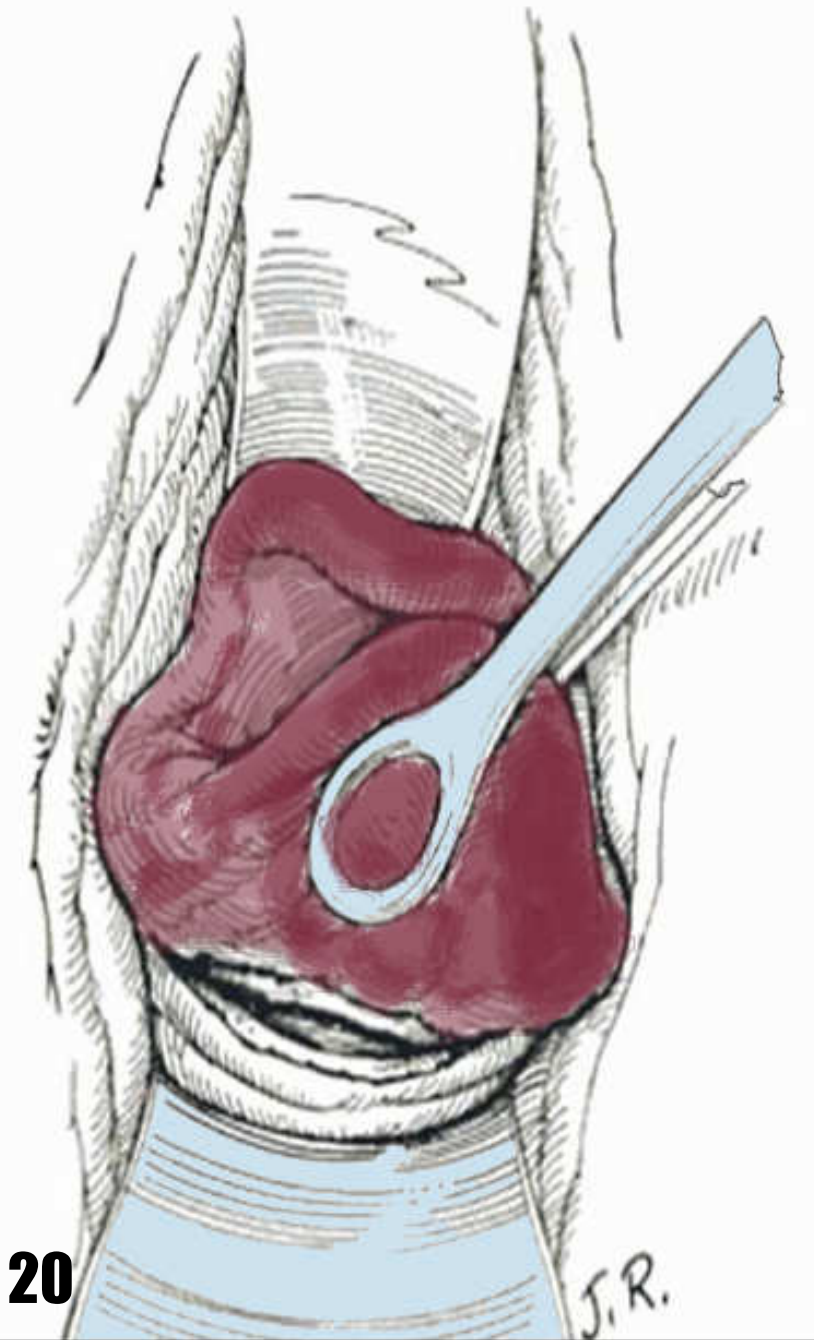
Vaginal Lacerations

- Upper 1/3rd of vagina
- Rare
- Rotational forceps

High Vaginal Tears

- Cervix may be involved
 - Base of broad ligament
 - Hemo-peritoneum
 - Laparotomy
- * Internal iliac artery ligation

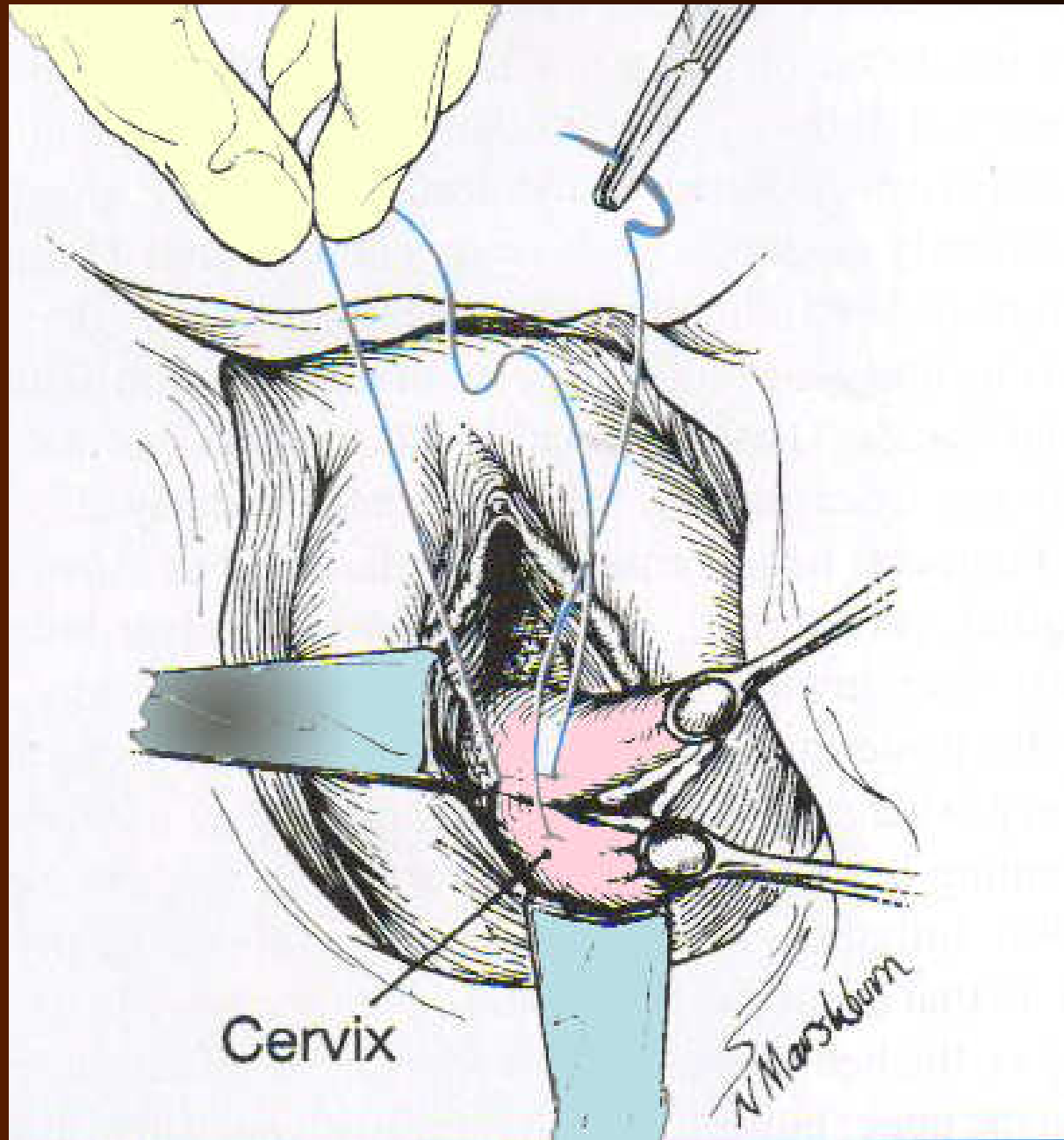
Cervix Exploration with Sponge Holders

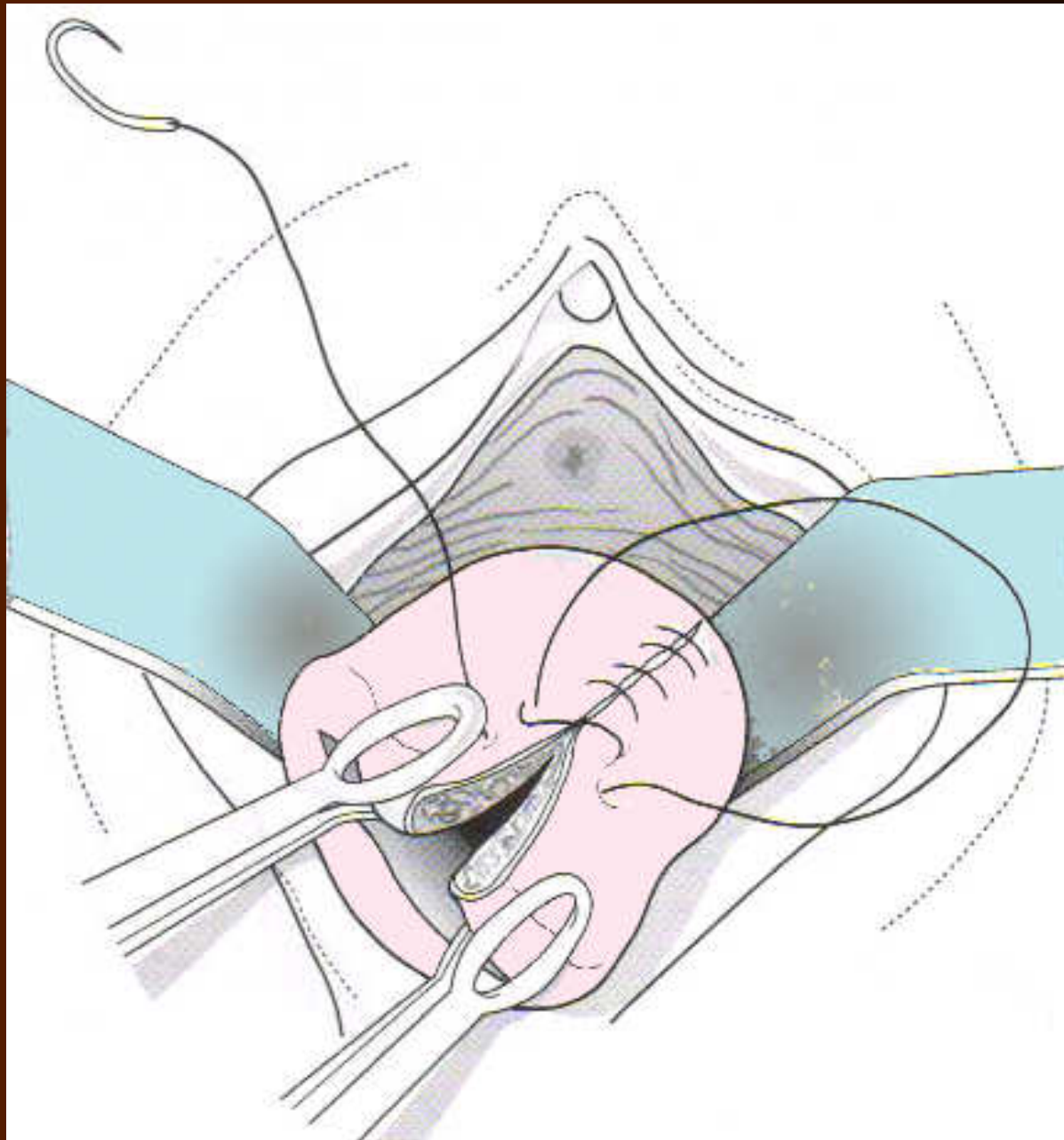




Cervix Exploration Set







Cerclage and Cervical tears

- Three times incidence of tears



Annular Detachment of Cervix

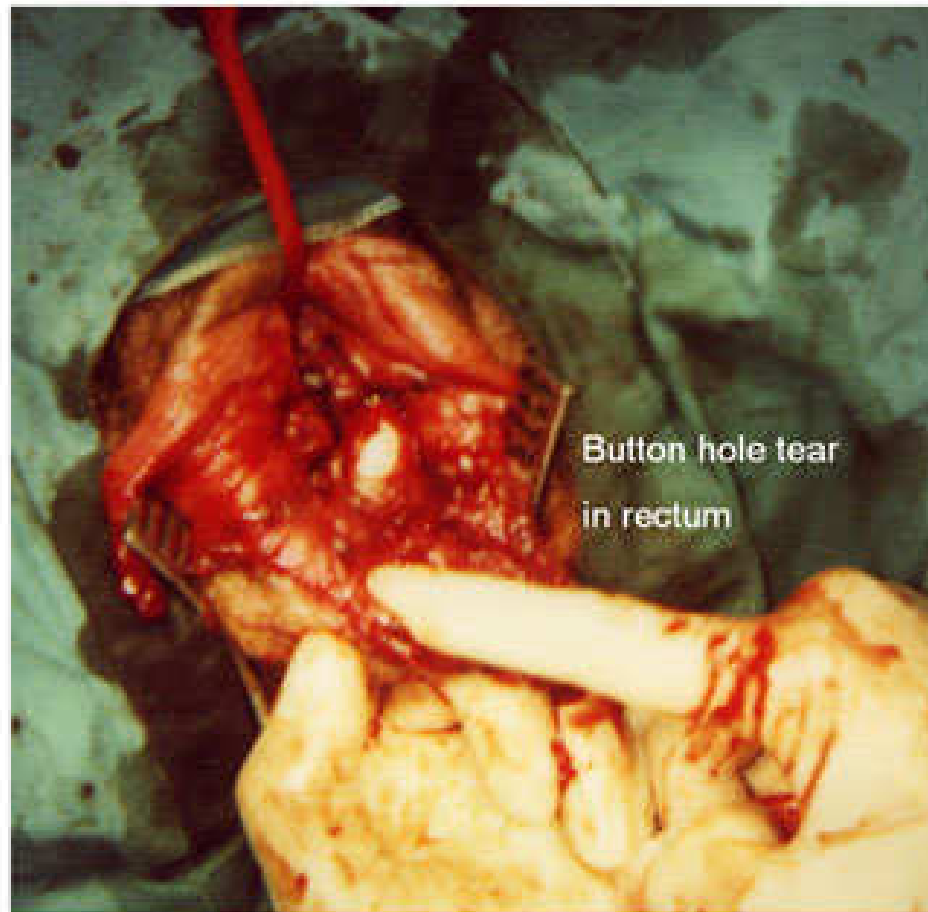
- Extremely rare
- Rigid / scarred cervix
- Bucket handle tears
- Unless they are bleeding - no suturing

Practice Points

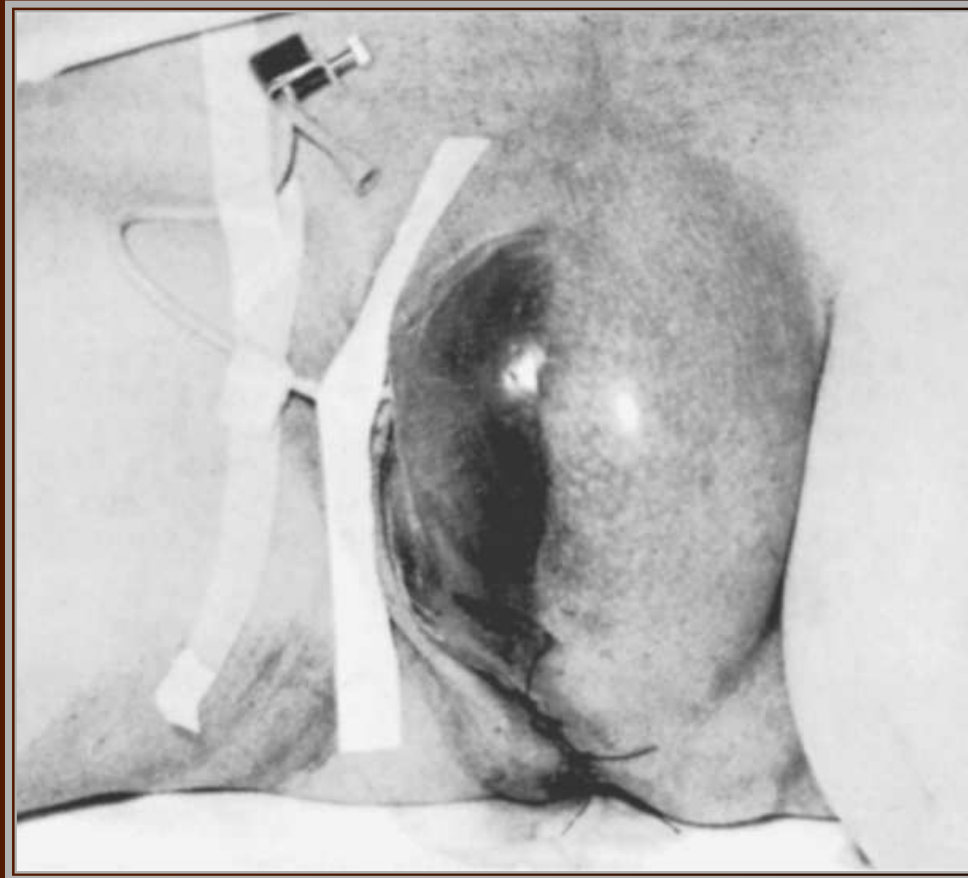
- Cervical exploration set
- Lighting
- Anaesthesia
- Polyglactin RAPIDE

Per Rectal Examination

Isolated rectal mucosal tear with an intact anal sphincter

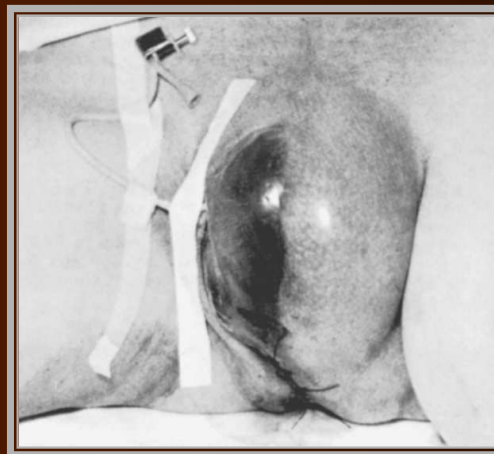


Genital Trauma - Hematomas



Incidence

- 1:300 to 1:1500 deliveries
- Potentially life-threatening complication



Defining a Hematoma

- More than 1.5 inches
- Cross sectional diameter > 2.5 cm
- Size sufficient for surgical intervention

Etiology and Risk Factors

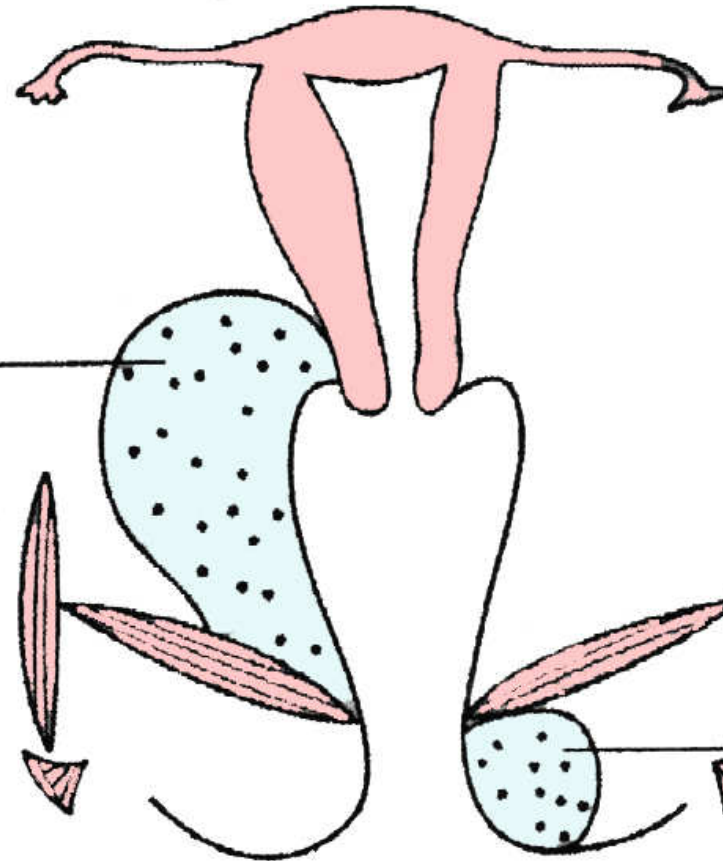
Maternal trauma

Maternal predisposing factors

Mothers at Risk

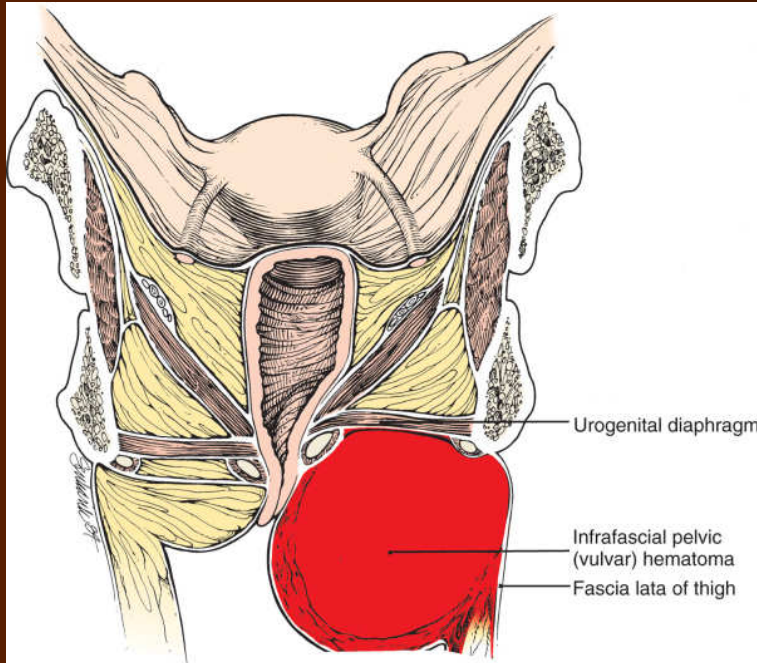
- Nulliparous
- More than 4000 grams baby
- Pre-eclampsia
- Prolonged second stage of labor
- Vulvar varicosities, or clotting disorders

Suprlevator
haematoma



Infralelevator
haematoma

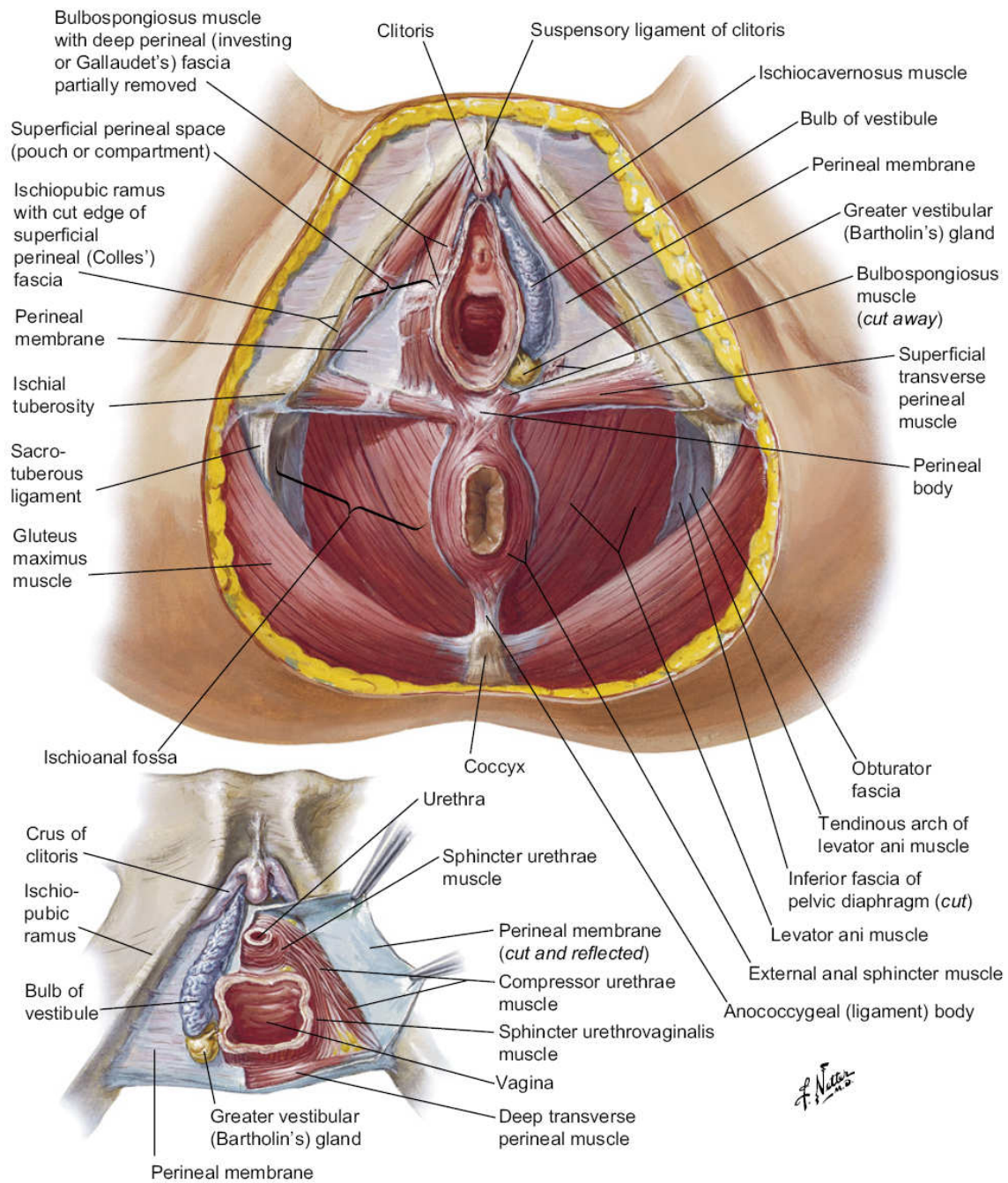
Classification



- Vulvar
- Vulvo-vaginal
- Vaginal
- Supra vaginal / sub-peritoneal

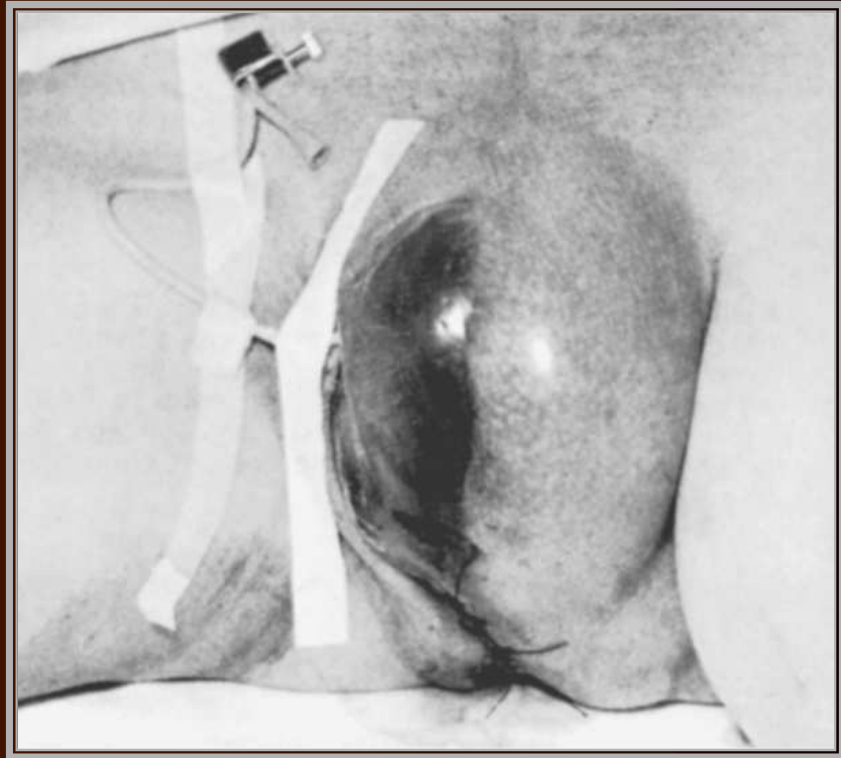
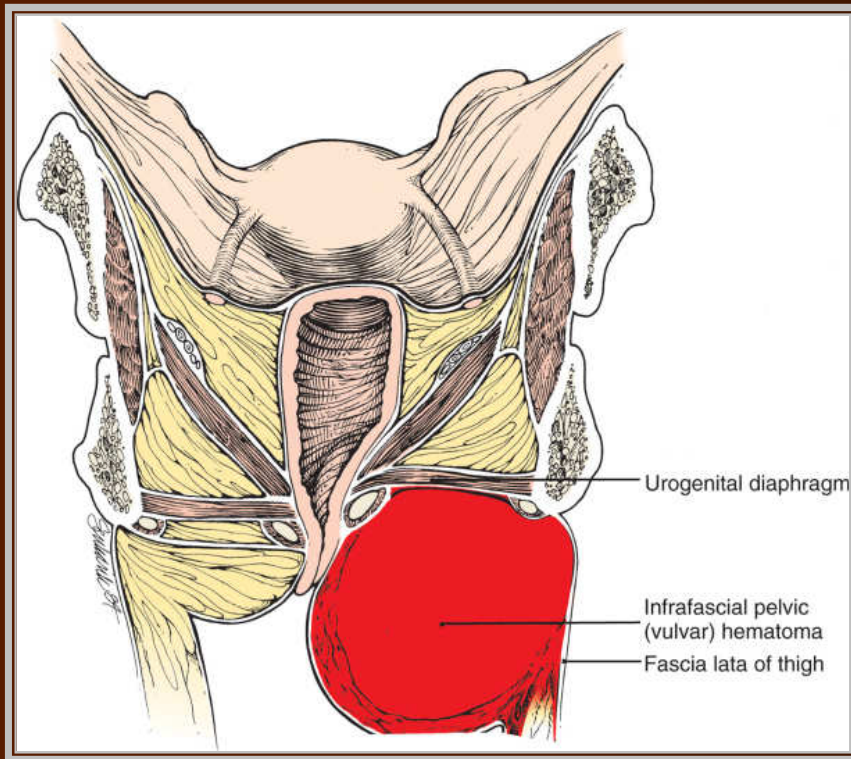
Hematomas - Classification

- Anterior and Posterior triangles
 - Central tendon of perineum
- Infra levator and supra levator
 - Levator muscle placement



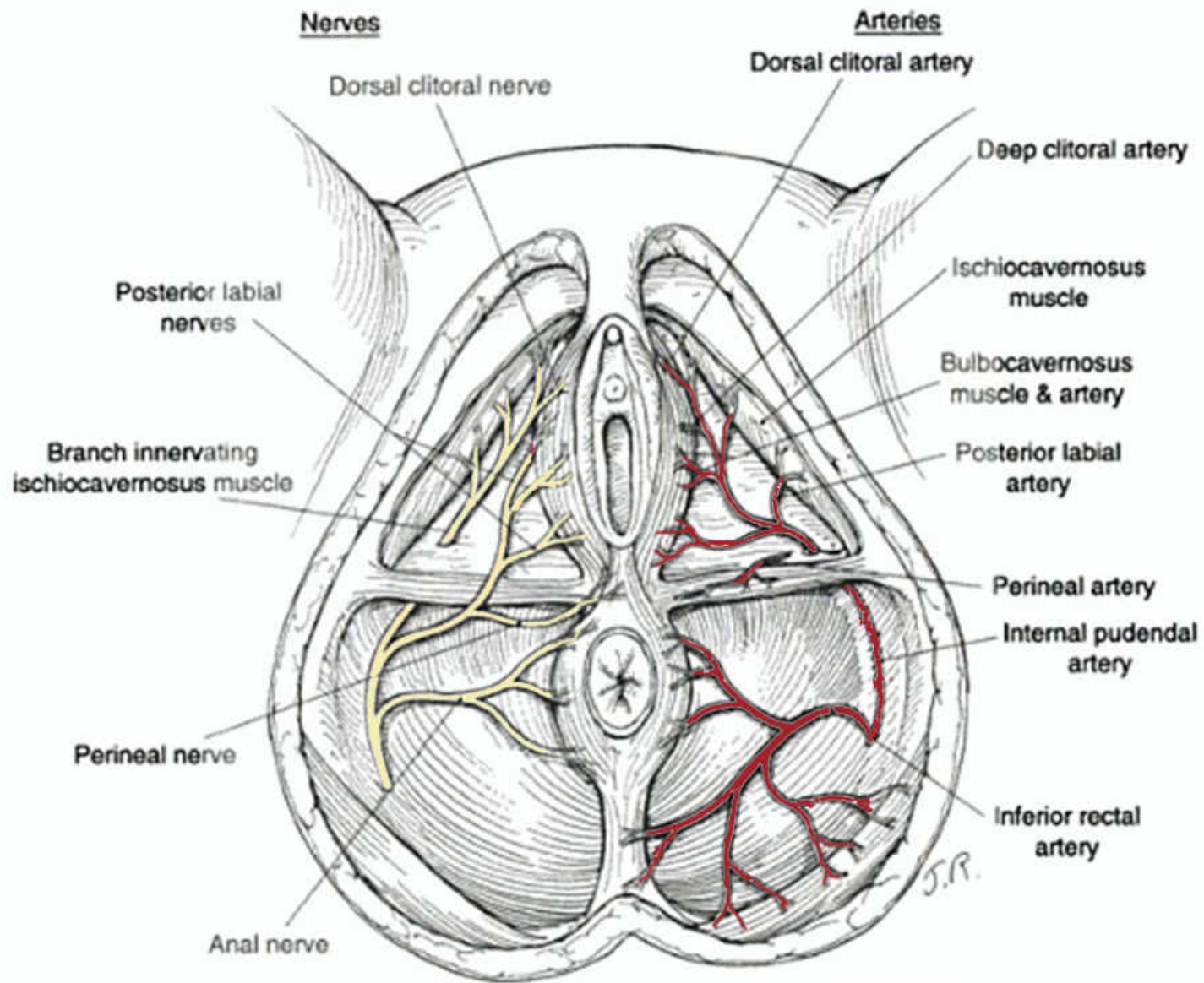
F. Netter M.D.

Vulval Hematomas



Vulval Hematoma

- Arterial - branches of pudendal artery
 - Inferior rectal
 - Transverse perineal
 - Posterior labial branches
- Venous



Vulval Hematoma

- Colle's fascia + Urogenital diaphragm
- Presenting symptom : pain
- Treatment depends on
 - Size
 - Rapid expansion

R_x

Conservative:

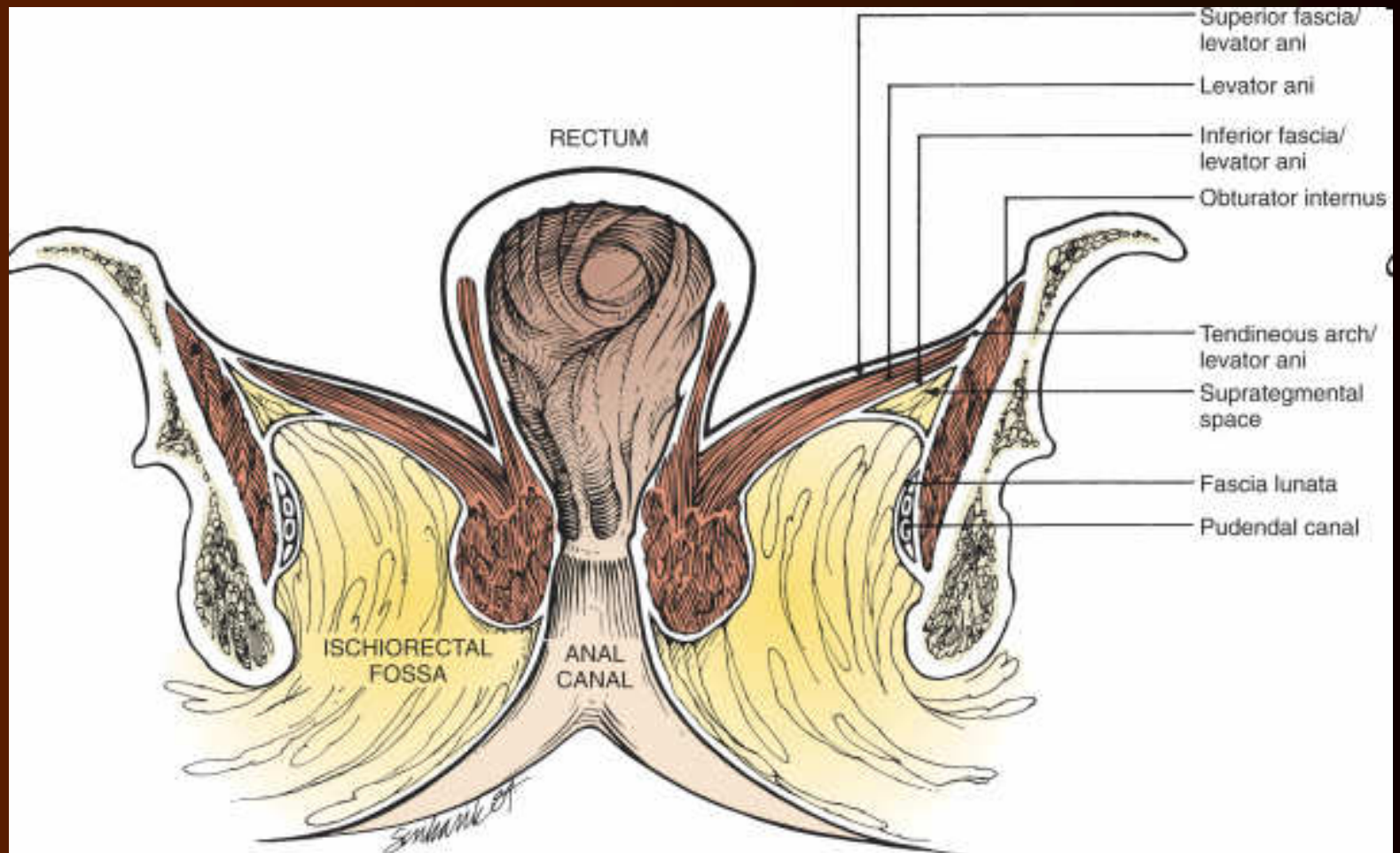
- Less than 5 cm
- Asymptomatic
- Stable hemodynamically

Surgical:

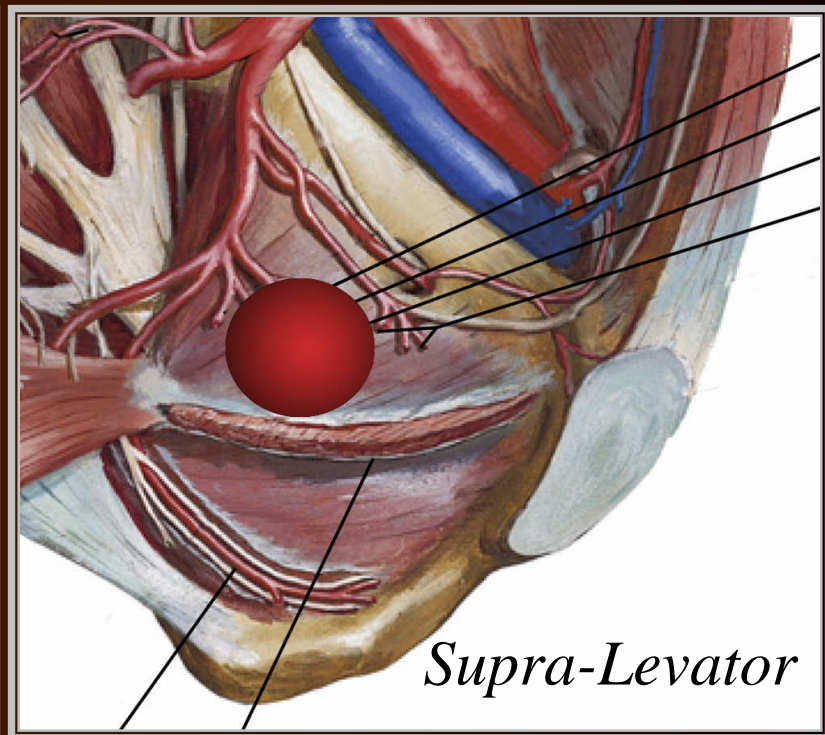
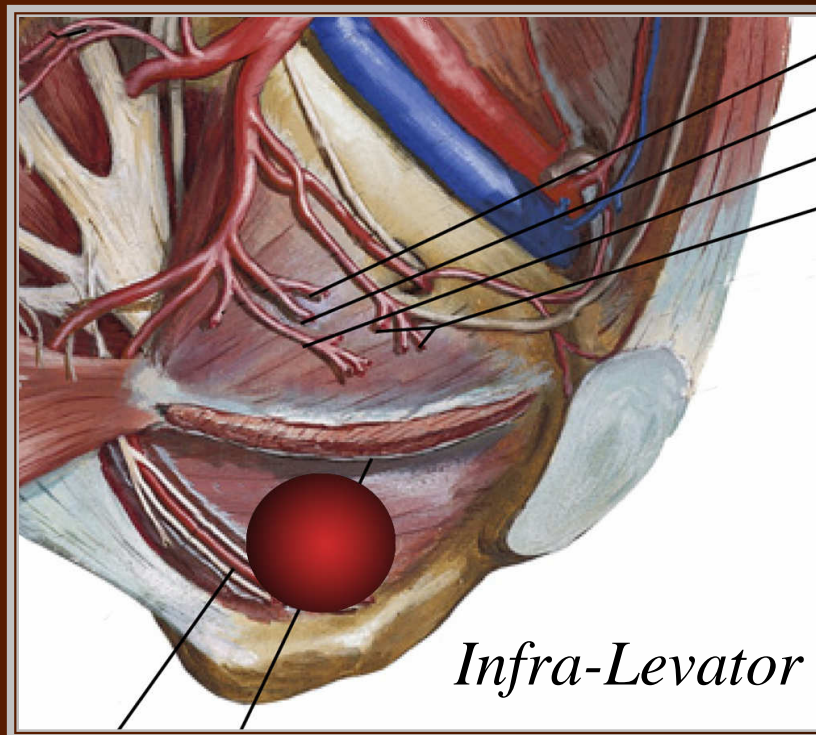
- Evacuation & close dead space
- Do not pack cavity
- Foley Catheter

Vaginal / Paravaginal Hematoma

- Descending branch of uterine artery
- Forceps / spontaneous
- Large accumulation of blood
- Ischiorectal fossa



Infra or Supra Levator



Infralevator Hematoma

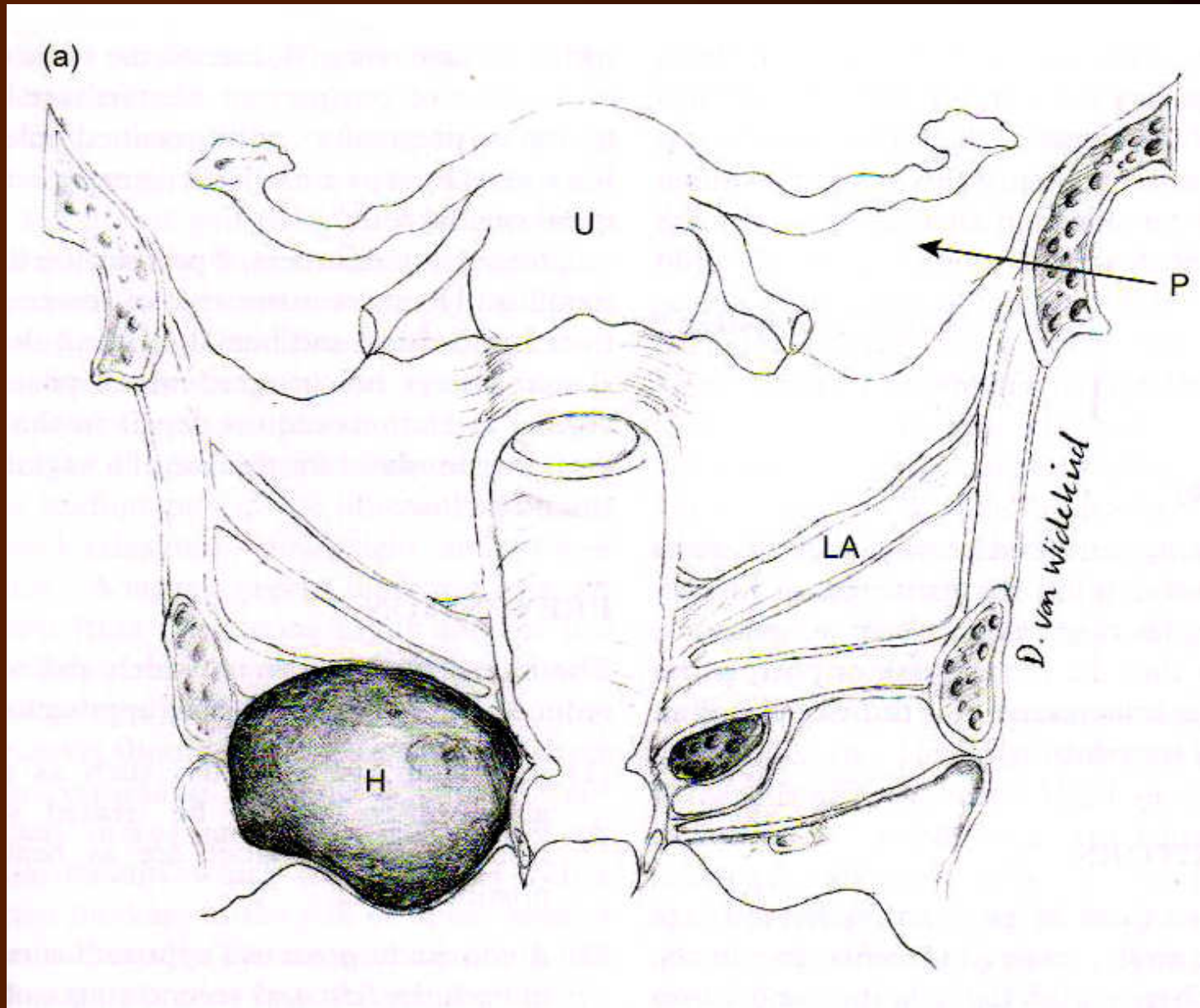
R_x

Conservative:

- Less than 5 cm
- Not expanding

Surgical:

- > 5 cm, expanding
- Surgical incision, from vagina
- Bleeding points
- Foley's catheter

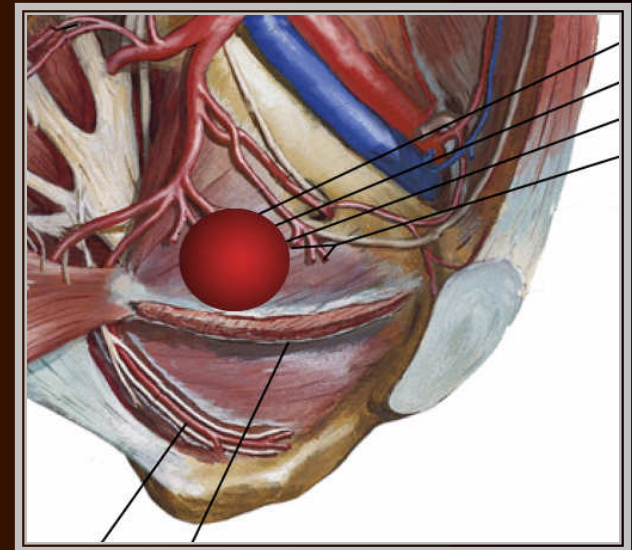


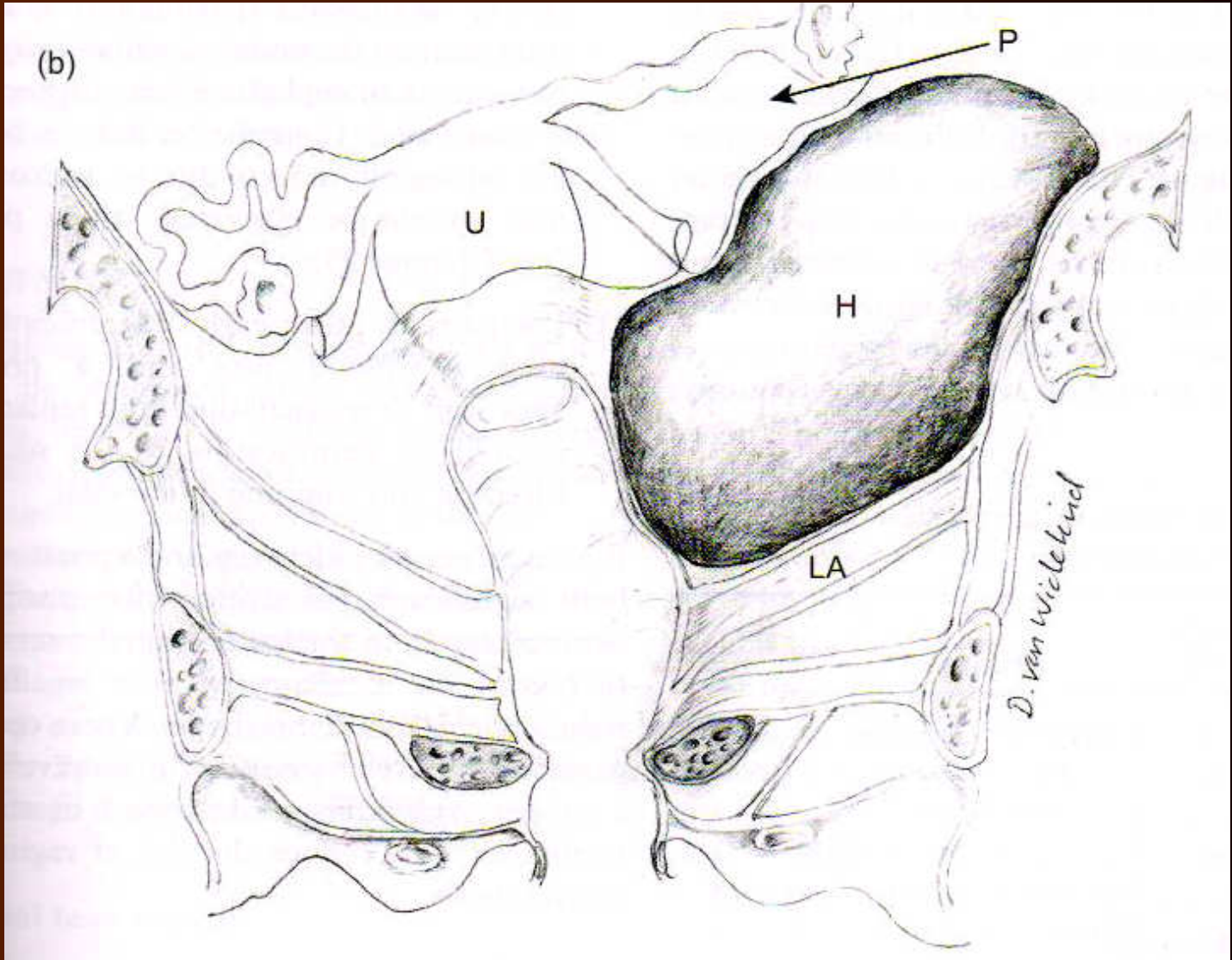
Sub-peritoneal Hematoma

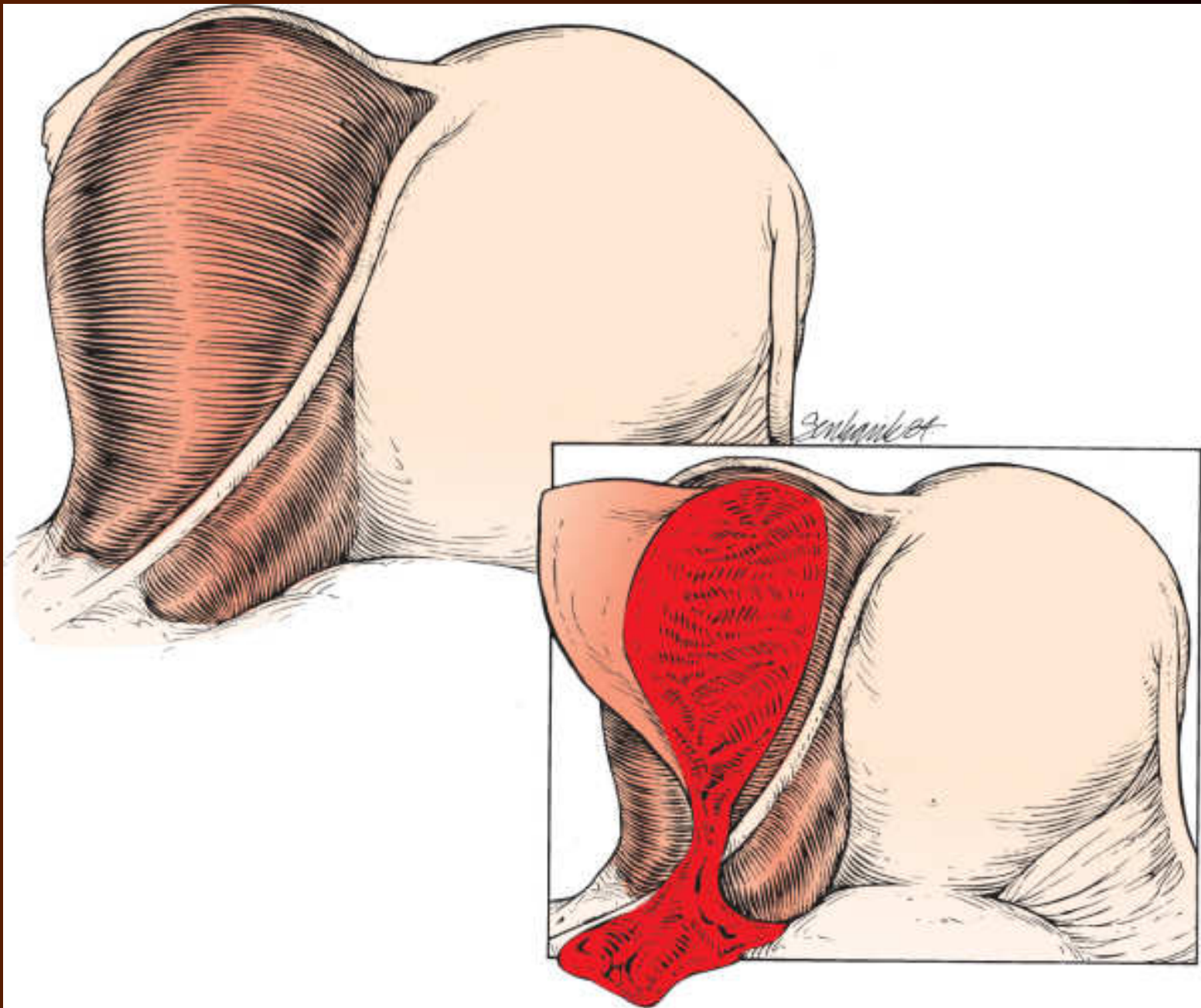
- Incidence : 1 in 3500 to 20,000
- 1/3 after spontaneous delivery
- 2/3 follow rotational forceps
- 50% discovered immediately

Sub-peritoneal Hematoma

- Pain abdomen, hemorrhage / shock
- USG / CT / MRI : diagnostic
- Resuscitation







Clinical Presentation

- Severe pain
- Abdominal mass
- Hypovolemic shock

Haemodynamic Stability

- The deciding factor for intervention

Treatment Options

- Laparotomy
- Selective arterial embolization

Laparotomy

- Look for rupture uterus
- Cervical tear extending up
- Anterior division of internal iliac artery
- Ligation : Arterial bed to venous bed

Arterial Embolization

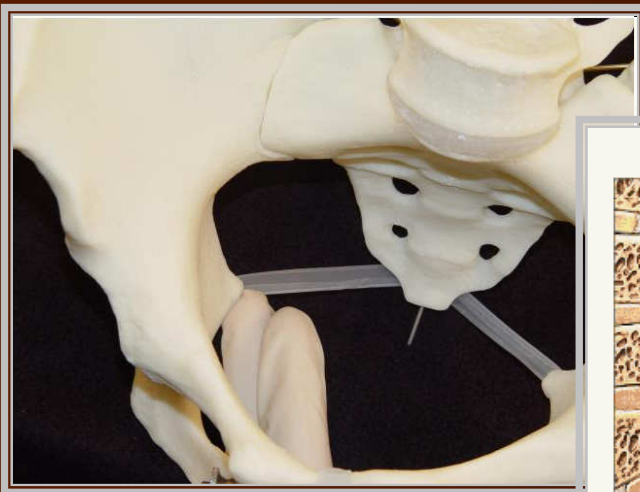
- When mainstay methods of suture and packing fail, arterial embolization becomes an excellent alternative to definitive treatment, laparotomy

Principles of Surgical Repair

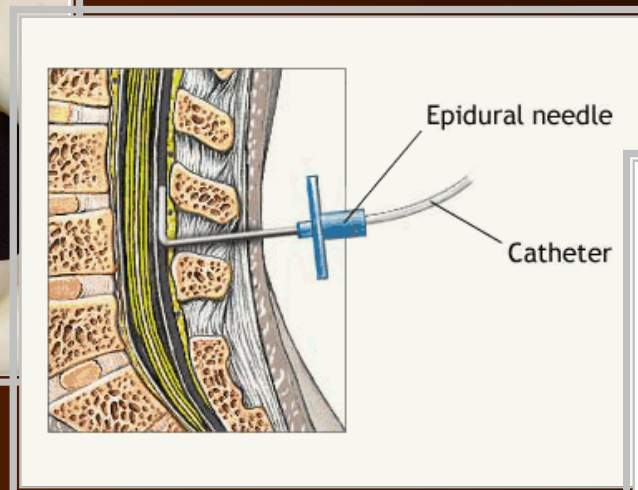
- Hemostasis and tissue approximation
- Tissue reaction
- Suture material
- Swabs / Instruments

Analgesia / Anaesthesia

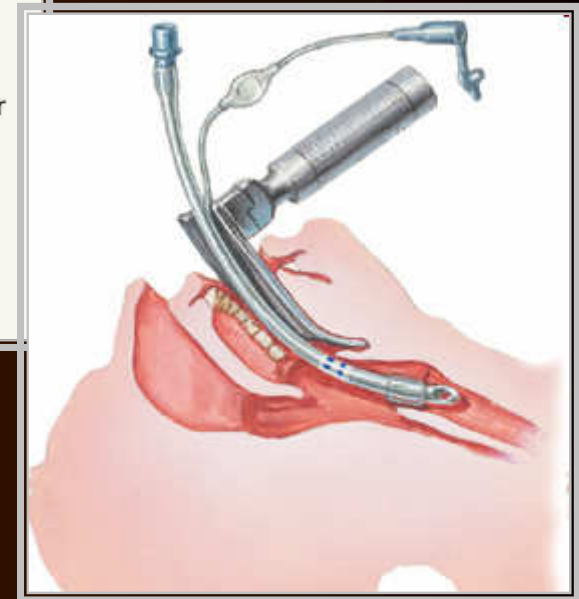
Pudendal Block



Epidural Block



General Anaesthesia



Lights



Suture Material



Post Operative Care

- Foley's catheter - closed drainage
- Cefazolin + Metronidazole
- Analgesics

A - Anticipate / Alert / Anatomy

B - Bleeding – Haemostasis

C - Clinical risk management