Endometrial Biopsy and IUCD Insertion

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Objectives:

► Review indications and contraindications for endometrial biopsy.
► Review indications and contraindications for IUCD insertion.
► Provide opportunity to learn manual skills required for endometrial biopsy and IUCD insertion.
Endometrial biopsy and IUCD insertion are cross procedures with similar steps and potential risks. If you are experienced in either procedure, it is relatively simple to occasionally complete the other.
ENDOMETRIAL BIOPSY
Abnormal Uterine Bleeding: Background

Normal menstrual cycle
- Cycle 28 ± 7 days
- Menses 4 ± 2 days
- Average blood loss 40 ± 20 ml

Abnormal uterine bleeding
- Change in frequency, duration, or blood loss

Pre, peri, or post menopausal

Dysfunctional uterine bleeding
- Diagnosis of exclusion
Abnormal Uterine Bleeding: Diagnosis

History
- Anovulatory or ovulatory

Physical examination
- General
- Pelvic

Differential diagnosis

Investigations

Assessment of the endometrium
Abnormal Uterine Bleeding: Endometrial Assessment

Transvaginal ultrasound
Assess endometrial thickness
Premenopausal (normal value unknown)
Post menopausal (normal ≤ 4 mm)

Endometrial biopsy
Adequate sample 85% of time and
detects 87-96% of endometrial cancer

D&C
Blind procedure with anesthetic risk

Hysteroscopy
Direct visualization endometrial cavity,
often combined with endometrial biopsy
Abnormal Uterine Bleeding: Management

Medical management
- NSAID
- Combined oral contraceptive pill
- Progestins (oral, IM, intrauterine)
- Danazol

Surgical management
- Endometrial ablation
- Hysterectomy
Endometrial Biopsy

**Indications**
- Sampling of endometrial tissue for investigation of abnormal uterine bleeding

**Contraindications**
- Pregnancy
- Active pelvic/vaginal infection
- Coagulopathy
Endometrial Biopsy Tray

- Gloves
- Vaginal speculum
- Cervical tenaculum
- Metal cup/basin with cotton balls
- Povidine or iodine solution
- Ring forceps
- Uterine sound
- Cervical dilators
- Endometrial biopsy pipette
- Formalin container for specimen
Patient Preparation

Pelvic examination on prior visit
Verbal or written consent for procedure
Pre-medication
  – Misoprostol 400 ug 12 hours prior
  – Ibuprofen 600 mg 30-60 minutes prior
  – IM Demerol/Gravol 60 minutes prior
  – Osmotic laminaria 12 hours prior
  – Topical, intracervical, intrauterine xylocaine
Proper positioning for procedure with adequate lighting
Intrauterine Lidocaine

Cervix & lower uterus innervated by parasympathetic plexus while uterine fundus innervated by sympathetic nerves

Best evidence for analgesia is combination of NSAID before procedure & intrauterine Lidocaine (3-5 ml of 2% injectable solution administered via angiocatheter through the cervical canal)

Procedure

Review procedure and position patient
Glove and insert speculum
Visualize cervix and clean with povidine
Apply tenaculum slowly on anterior cervix
With gentle traction on tenaculum, sound uterine cavity
If unable to sound, try inserting dilator or using os finder
If successful, try sounding uterine cavity
Procedure

Insert tip of endometrial biopsy pipette into the uterine cavity
Pull back on the plunger to create suction
Place the pipette at the top of uterine cavity
Pull back on the pipette while simultaneously twisting with two fingers
Procedure

Systematically sample entire cavity
Withdraw the pipette from the uterus and with sterile technique, push sample into the jar of formalin
As your assistant holds the jar, ensure adequate sample has been obtained
If inadequate sample, repeat sampling steps
Slowly remove tenaculum
Procedure

Clean vagina of excess blood and visualize cervix before removing speculum.

Gently place patient in supine position for several minutes before your assistant supervises her as she sits up.

Complete pathology requisition, review after care instructions, schedule follow up appointment, make procedural note for chart.
Challenges & Practical Tips

- Analgesia/anesthesia
- Stenotic cervical canal
- Inadequate sample
- Infection
- Uterine perforation
IUCD
INSERTION
The IUCD is an effective but underutilized method of contraception in Canada. Previous infection rates were over estimates and recent data shows that the rate of PID is similar to the general population three weeks after IUCD insertion.
IUCD Options

Mirena (Bayer $390)
  Insertion diameter 4.8 mm
  Pregnancy rate .1/100 women years

Flexi T 300 (Trimedic Supply Network $90)
  Insertion diameter 3 mm
  Pregnancy rate .6/100 women years

Nova T 200 (Bayer $205)
  Insertion diameter 3.7 mm
  Pregnancy rate .3/100 years
Indications
- Ongoing contraception
- Post coital contraception
- Menorrhagia/dysfunctional uterine bleeding

Contraindications
- Pregnancy
- Active pelvic/vaginal infection
- Allergy to component of IUCD
IUCD Insertion Tray

- Gloves
- Vaginal speculum
- Cervical tenaculum
- Metal cup/basin with cotton balls
- Povidine or iodine solution
- Ring or Kelly forceps
- Uterine sound
- Cervical dilators
- Scissors
- Intrauterine contraceptive device
Patient Preparation

Pelvic examination on prior visit
Written patient handout
Verbal or written consent for procedure
Pre-medication
  Misoprostol 400 ug 12 hours prior
  Ibuprofen 600 mg 30-60 minutes prior
Proper positioning for procedure
 Procedure

Review procedure and position patient
Glove and insert speculum
Visualize cervix & clean with povidine
Apply tenaculum slowly on anterior cervix
With gentle traction on tenaculum, sound uterine cavity
If unable to sound, try inserting dilator or using os finder
If successful, sound uterine cavity
Procedure

Remove IUCD from packaging
Ensure IUCD is loaded
Set IUCD to proper depth
With traction on tenaculum, insert the applicator to proper uterine depth
Unload the IUCD and remove introducer
Cut the threads 2-3 cm from the cervix
Remove the tenaculum
Procedure

Gently place patient in supine position for several minutes before your assistant supervises her as she sits up.

Review after care including low risk of pregnancy.

Schedule follow-up appointment in 6 weeks.

Make procedural note for chart.