Case 1 – Describe the low power histology of the normal uterus. Correlate with the gross image.
Case 1 Describe the histologic features of normal endometrium

Case 1 - Compare and contrast the histology

Case 1 – Normal postmenopausal endometrium – describe the findings
Case 1 – Describe the histology

Case 2

CHIEF CONCERN: None

HISTORY: A 38-year-old woman undergoes a routine, annual gynecologic examination. Her gestational history is as follows: gravida 4, para 3 with one spontaneous abortion. She menstruates every 28-31 days for 2-4 days. She experienced three or four episodes of metrorrhagia in the previous year, but no hypermenorrhea.

PHYSICAL EXAMINATION: The patient is a moderately obese woman who is alert and in no distress. Vital signs are as follows: blood pressure 136/84, apical heart rate 80/minute and regular, respiratory rate 14/minute, temperature 97.9°F. Examination of the abdomen: It is soft and slightly round; no organomegaly.

Case 2

PHYSICAL EXAMINATION: Pelvic examination reveals normal external genitalia. Speculum exam reveals normal vaginal and cervical mucosa. Bimanual exam reveals an asymmetrically enlarged uterus. The uterus is the size of a 2-3 month gestation and is freely movable. The uterus contains multiple nodules of varying size which are not tender. The adnexae are not palpable.
Case 2

What is the clinical problem?

Case 2 Define the following terms:

- Menorrhagia
- Hypermenorrhea
- Polymenorrhea
- Oligomenorrhea
- Metrorrhagia
- Menometrorrhagia

Case 2 - CT scan

What organ is highlighted by the arrows?

Contrast the patient’s organ with normal.
Case 2

Describe the gross morphology (3 different specimens on the next 3 slides)

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Case 2

Specimen bisected

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Case 2

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Case 2 – Describe the low power findings

Case 2 - Describe the findings on higher power
Case 2 - Describe the high power findings

Case 2

What is your diagnosis?

Correlate the clinical findings with the pathology.

Case 3

CHIEF COMPLAINT: “I'm bleeding from my vagina.”

HISTORY:
Patient is a 69 year-old woman who presents with intermittent vaginal bleeding of 9 months duration. Initially she noted spotting of bright red blood which seemed to occur several times each month. No particular activity precipitates the bleeding and she experiences no other symptoms. She states, "I just thought my period came back."

She is twelve years post-menopause. She has never had children. After three months of spotting, she sought care from a physician who placed her on "estrogen pills to control my bleeding." He also gave her "iron pills".
Case 3

The vaginal bleeding continued and contained small clots. The bleeding was always irregular. She sought a second opinion because the bleeding progressed. She has been treated for diabetes mellitus, type 2 since age 52.

PHYSICAL EXAMINATION:
Vital signs: Blood pressure 146/90, pulse 90/minute, respiratory rate 18/minute, temperature 98°F.
BMI 36
Abdomen is soft and round. Organomegaly and masses are not palpable.
Pelvic exam reveals external genitalia consistent with the age of the patient.
The vaginal introitus is narrowed and only admits two fingers.
A small speculum allows visualization of the cervix. The ectocervix is smooth.
Blood is noted in the os.
Bimanual exam reveals a symmetrically enlarged, non-tender uterus. The adnexae are not palpable.

LAB TESTS:
Hemoglobin 9.8 grams/dl
Hematocrit 30%
MCV 79 fl
Case 3

What is the major clinical problem?

What are the common causes of this problem in post-menopausal women?

Case 3 - If this patient's uterus would be removed, it might look like one of these. Describe the gross findings.

Case 3 - describe the low power findings
Case 3 – Describe the high power histologic findings

Case 3

What is your diagnosis?

From this patient’s history, explain why her initial management was not the standard of care.

Case 3

That patient is visibly upset when she learns of the diagnosis and asks “Why did I get this?”

How would you respond?
**Case 4**

**CHIEF COMPLAINT:** “My husband and I have been trying to have a baby for the past five years.”

**HISTORY:**
A 27-year-old woman presents with the inability to conceive a child during the past five years. She and her husband have sexual relations 1-2 times per week and very much desire to have children.

Menstrual history:
- Menarche occurred at age 13.
- Menstrual cycles have been fairly regular since age 17.
- Average cycle is 29-30 days, with menses being 5 days in duration.
- Menstrual flow has been consistent, requiring 3-4 pads initially and gradually tapering off.
- She has had premenstrual cramping and cramping pain the first day of menses since her teen years.
- For the past year or two she has experienced a more diffuse pain throughout her lower pelvis and more severe menstrual pain.
- Has nausea and low back pain during menstruation.

**Additional history**
- She notes abdominal pain at times during intercourse and when she moves her bowels.
- Intermittent vaginal spotting occurs but no vaginal discharge.
- At age 24 she was involved in an automobile accident which required abdominal surgery to stop bleeding from “my intestines.”

**PHYSICAL EXAMINATION:**
Thin, well nourished woman. She is alert and in no distress.

Vital signs: Blood pressure 116/82, Apical heart rate 76/minute and regular, respiratory rate 12/minute, temperature 98.2°F.

Abdomen – normal bowel sounds, no masses or tenderness
13.5 cm long parasagittal scar in the left lower quadrant represents a healed surgical incision. Several small nodules are felt below the scar (patient says her scar “hurts when I menstruate”).
Case 4

Pelvic exam reveals normal external genitalia. Speculum exam reveals normal vaginal and cervical mucosa. The external os is small and round. Bimanual exam reveals slight tender nodularity in cul-de-sac, recto-vaginal septum and uterosacral ligaments. The uterus is of normal size. The right adnexa is tender; the left is not. The rectal exam produces pain when the anterior wall is palpated.

Case 4

What are the major clinical problems?

Case 4 – List key clinical distinguishing features of the following causes of pelvic pain:

- Ruptured ovarian cyst and twisted ovarian cyst
- Ovarian cancer
- Ectopic pregnancy
- Pelvic inflammatory disease
- Adenomyosis
- Endometriosis
Case 4

Based on the given data, what clinical diagnosis is favored?

Case 4 – Describe the key finding seen at laparoscopy (and define laparoscopy)

Posterior uterus near fallopian tube

Round ligament

Case 4 – Biopsy of finding on round ligament at laparoscopy. Describe the histology
Case 4

What is your diagnosis?
Correlate the pathologic findings with the clinical findings.

Why did the patient’s surgical scar hurt when she menstruated?

Case 4 – Name the organ. Describe the findings
Case 5

HISTORY:
The patient is a 25-year-old woman who presents with bilateral lower abdominal pain of 3 days duration. The pain is sometimes sharp but more often dull; it is moderate in intensity and continuous. Movement accentuates the pain which remains localized to the right and left lower quadrants of the abdomen.
In addition to the abdominal pain, the patient has noticed a yellowish-white vaginal discharge for two weeks. She also has mild dysuria but no urgency or frequency. The patient relates that she had similar health problems in the past for which she had been treated. Treatment did not require hospitalization.
Her gestational history is gravida 0.

Case 5

PHYSICAL EXAMINATION:
Temp 101 degrees F, pulse 100, BP 108/72
The abdomen is scaphoid and soft. Palpation reveals mild point tenderness in the right and left lower quadrants but no rebound tenderness. No organomegaly. The bowel sounds are normoactive.
Pelvic exam reveals normal external genitalia. The vaginal mucosa is hyperemic and covered by a thin, yellow-white exudate. The same exudate flows from the cervical os. Bimanual examination of the corpus/cervix uteri demonstrates normal size but adnexal pain on motion of the cervix. The adnexae are tender by palpation.

Case 5

What is the main clinical problem?

Develop a differential diagnosis.
Case 5 - Laboratory Data

- WBCs
  13,700/mm³ (reference range 4,500-11,000/mm³)
- Urine HCG - negative

Case 5 - Describe the gram stain of cervical discharge

Case 5

What is the clinical diagnosis?

What microorganism is the most likely etiologic agent in this case? What are other etiologic agents?
Case 5 - Describe the morphologic findings of this section of fallopian tube and ovary

Source: Utah Web Path

Case 5: What is the organ? Describe the histologic findings.

Case 5 – High power. Describe the findings.
Case 5

What potential complications of this disease process may this patient experience in the future?

Case 5 - Describe the gross findings and correlate to associated clinical complications