

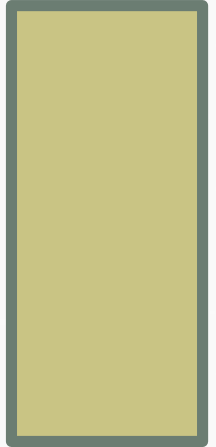
DIAGNOSIS OF PREGNANCY

Ina S. Irabon, MD, FPOGS, FPSRM, FPSGE

Obstetrics and Gynecology

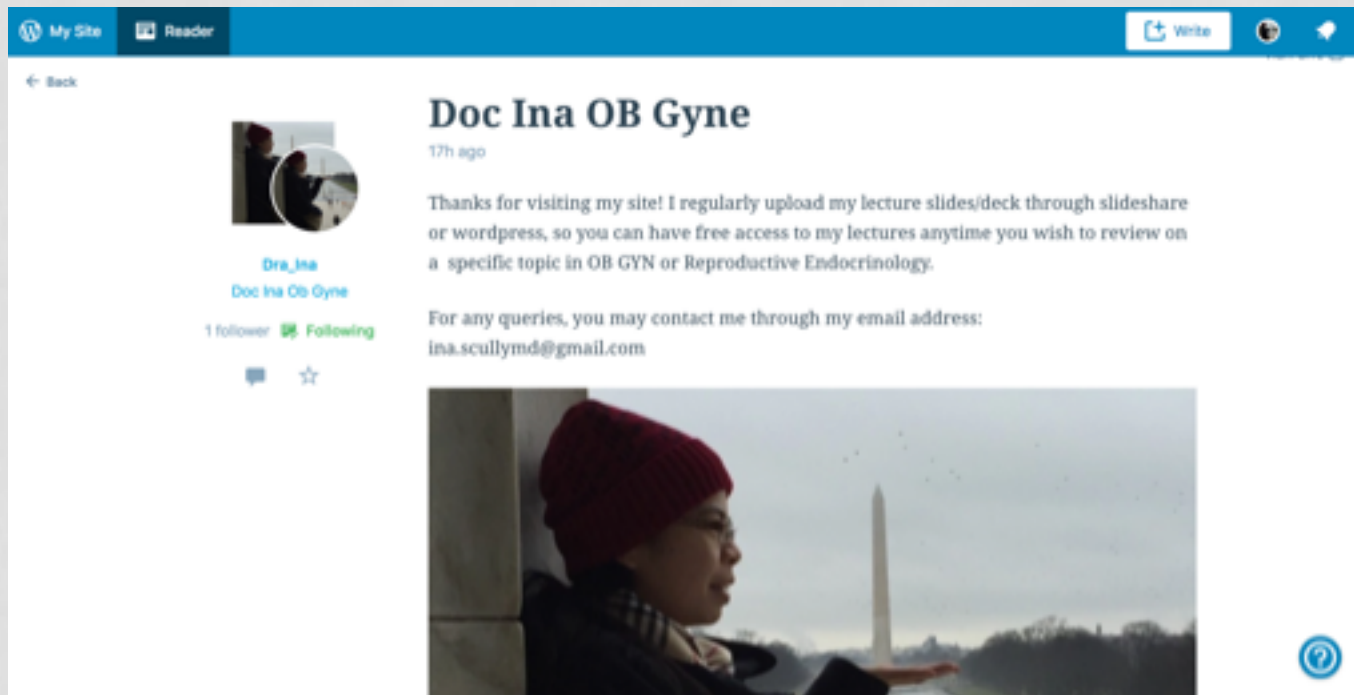
Reproductive Endocrinology and Infertility

Laparoscopy and Hysteroscopy



TO DOWNLOAD THIS LECTURE DECK:

- www.slideshare.net → type “Ina Irabon” in SEARCH bar
- www.wordpress.com



The screenshot shows a WordPress site profile for 'Doc Ina OB Gyne'. The profile includes a circular profile picture, the name 'Doc Ina OB Gyne', and a bio that reads: 'Thanks for visiting my site! I regularly upload my lecture slides/deck through slideshare or wordpress, so you can have free access to my lectures anytime you wish to review on a specific topic in OB GYN or Reproductive Endocrinology.' Below the bio, it says 'For any queries, you may contact me through my email address: ina.scullymd@gmail.com'. The profile also shows '1 follower' and 'Following' status. A large image of a woman in a red beanie looking at the Washington Monument is visible at the bottom of the profile page.



REFERENCES

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

OUTLINE

1. Presumptive evidence of pregnancy

- Presumptive symptoms
 - a) Nausea with or without vomiting
 - b) Disturbance in urination
 - c) Fatigue
 - d) Maternal perception of fetal movement
 - e) Breast symptoms

- Presumptive signs
 - a) Amenorrhea
 - b) Thermal signs
 - c) Anatomic breast changes
 - d) Skin pigmentation changes
 - e) Changes in vaginal mucosa

OUTLINE

2. Probable evidence of pregnancy

- Enlargement of the abdomen
- Changes in the size, shape and consistency of the uterus
- Anatomical changes in cervix
- Braxton-Hick's contractions
- Ballottement
- Physical outlining of the fetus
- Positive results of endocrine tests

OUTLINE

3. Positive evidence of pregnancy

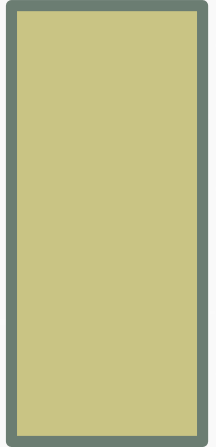
- Identification of fetal heart tones
- Perception of fetal movement by the examiner
- Recognition of embryo or fetus by ultrasound imaging

4. Differential diagnosis of pregnancy

DIAGNOSIS OF PREGNANCY

1. **Presumptive evidence:** based on signs and symptoms that may resemble pregnancy; very non-specific
2. **Probable evidence:** signs that indicate pregnancy the majority of the time. However, there is still the chance they can be false or caused by something other than pregnancy
3. **Positive signs:** guarantees the presence of pregnancy; signs that cannot, under any circumstances, be mistaken for other conditions,

PRESUMPTIVE EVIDENCE



PRESUMPTIVE SYMPTOMS

1. Nausea with or without vomiting

- “Morning sickness” – patients experience GI disturbances during the first three months of pregnancy, usually in the morning
 - **PICA** – craving for non-edible materials, such as soil, paper, etc
 - **Hyperemesis gravidarum** – extreme case of nausea and vomiting associated with hyperplacentalos, like multiple pregnancies or molar pregnancy
 - → **Correlates significantly with levels of β HCG**
 - Peaks at 60-90 days AOG, then disappears thereafter
-
- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
 - Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SYMPTOMS

2. Disturbances in urination
3. Fatigue
4. Perception of fetal movement

“Quickening” – awareness of baby’s first movement

- Primigravida: 18-20 weeks AOG
- Multigravida: 16-18 weeks AOG

5. Breast symptoms – enlargement, tenderness

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William’s Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

1. Cessation of menstruation

2. Anatomic breast changes

- Circumlacteal sebaceous glands of the areola (Montgomery's tubercles) become hypertrophied and very prominent
 - Nipple/areola becomes broader, darker/deeply pigmented, and more prominent
 - At 16th week AOG : a thick yellowish fluid, called the *colostrum*, may be expressed from the breasts by gentle massage
-
- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
 - Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

3. Changes in the Vaginal Mucosa

“Chadwick’s sign” – vaginal mucosa becomes congested and violaceous, or bluish to purplish in color



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

- The vaginal walls undergo striking changes in preparation for the distention that accompanies labor and delivery.
- These changes include a considerable increase in mucosal thickness, loosening of the connective tissue, and smooth muscle cell hypertrophy.



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

4. Skin pigmentation changes

- **Linea Nigra** : darkening of the linea alba (midline of the abdominal skin from xiphoid to symphysis pubis)
- → due to stimulation of melanophores by increase in melanocyte stimulating hormone



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

4. Skin pigmentation changes

CHLOASMA/"MELASMA GRAVIDARUM" -- irregular brownish patches of varying size appear on the face and neck —the so-called *mask of pregnancy*.



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

4. Skin pigmentation changes

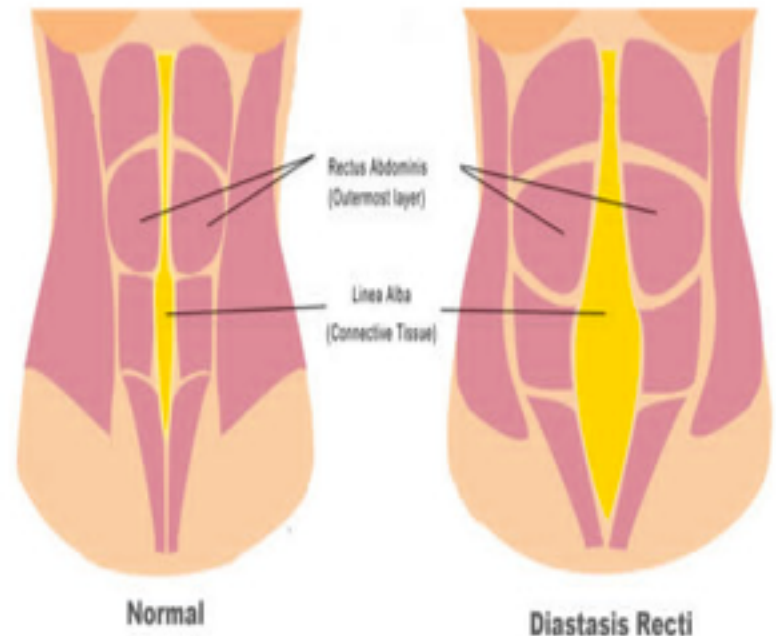
- **Striae gravidarum:** “stretch marks”
- → separation of the underlying collagen tissue (secondary to stretching of the abdomen) and appear as irregular scars
- → reddish or purplish → becomes silvery after delivery
- associated risk factors are weight gain during pregnancy, younger maternal age, and family history.



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

- Occasionally, the muscles of the abdominal walls do not withstand the tension to which they are subjected.
- As a result, rectus muscles separate in the midline, creating **diastasis recti**
- If severe, a considerable portion of the anterior uterine wall is covered by only a layer of skin, attenuated fascia, and peritoneum to form a ventral hernia.



HEALTHY HABITS
HAPPY MOMS

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PRESUMPTIVE SIGNS

4. Skin pigmentation changes

- **Spider telangiectasia** : vascular stellate marks resulting from high levels of estrogen
- → blanch when pressure is applied
- → palmar erythema is an associated sign
- Typically develops in face, neck, upper chest and arms



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

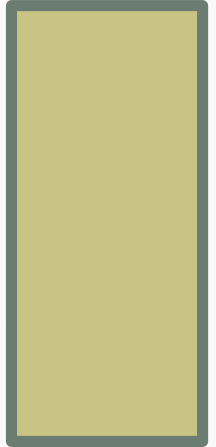
PRESUMPTIVE SIGNS

5. Thermal signs

- Elevation of body temperature for longer than 3 weeks → secondary to thermogenic effect of progesterone

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE



PROBABLE EVIDENCE

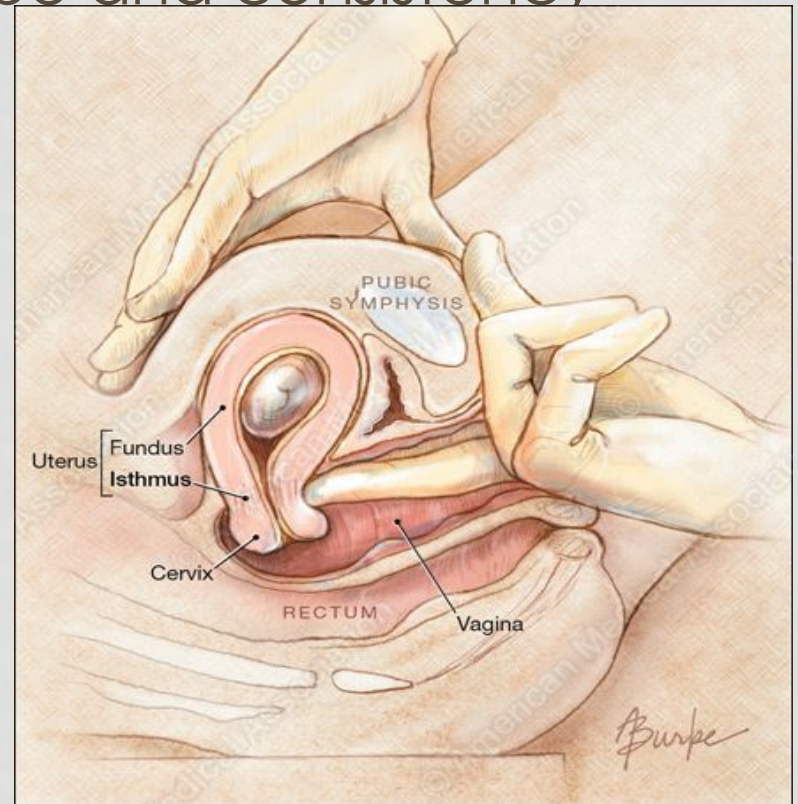
- 1. Abdominal Enlargement
 - 0 to 12 weeks AOG: uterus is a pelvic organ
 - **12 weeks AOG**: uterus at symphysis pubis
 - **16 weeks AOG**: midway between symphysis pubis and umbilicus
 - **20 weeks AOG**: umbilical level
- Linear measurement from the symphysis pubis to the uterine fundus on an empty bladder correlates with AOG at **16-32 weeks (FUNDIC HEIGHT)**
 - example: 20 weeks AOG = 20 cm



PROBABLE EVIDENCE

- 2. Changes in uterine size, shape and consistency

Hegar's sign : softening of the uterine isthmus, resulting in its compressibility on bimanual examination; observed by the **6th to 8th week AOG**



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (20140; chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

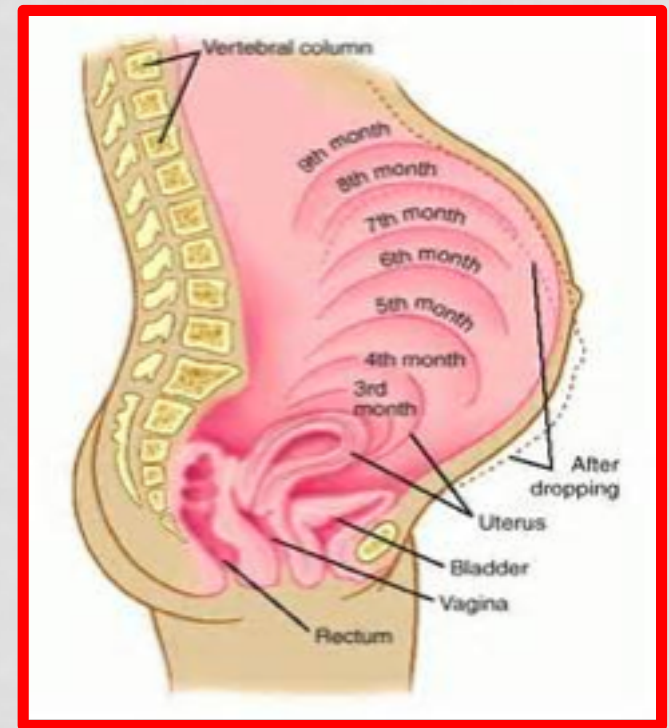
PROBABLE EVIDENCE

• 2. Changes in uterine size, shape and consistency

As pregnancy advances, the corpus and fundus become more globular and almost spherical by 12 weeks' gestation.

Beyond 12 weeks, the uterus has become too large to remain entirely within the pelvis.

As uterus enlarges, it rotates to the right → “**dextrorotation**” -- likely caused by the rectosigmoid on the left side of the pelvis. As the uterus rises, tension is exerted on the broad and round



- ligaments.
- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
 - Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

- 2. Changes in uterine size, shape and consistency

Goodell's sign : cyanosis and softening of the cervix; May occur as early as 4 weeks AOG

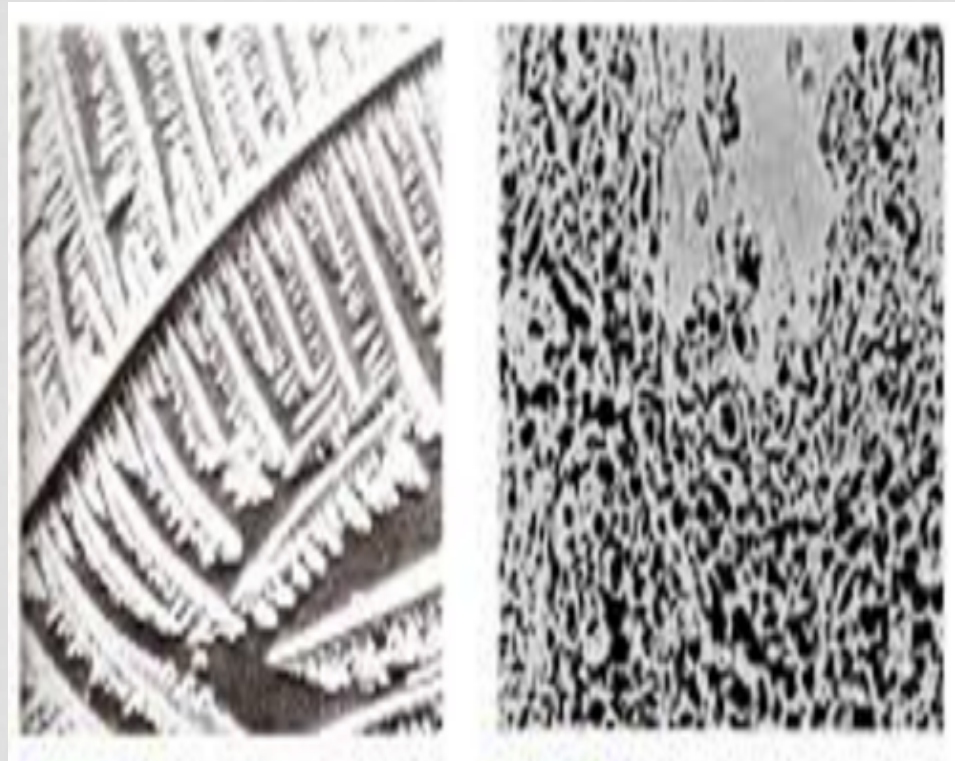
- results from increased vascularity and edema of the entire cervix, together with hypertrophy and hyperplasia of the cervical glands
- Rearrangement of the collagen-rich connective tissue of the cervix is necessary to permit functions such as:
 1. maintenance of a pregnancy to term
 2. dilatation to aid delivery
 3. repair following parturition so that a successful pregnancy can be repeated

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

- 3. Changes in the cervix

Cervical mucus has a beaded cellular pattern →
progesterone effect



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

- When cervical mucus is spread and dried on a glass slide, it is characterized by poor crystallization, or beading.
- In some women, an arborization of crystals, or ferning, is observed as a result of amniotic fluid leakage

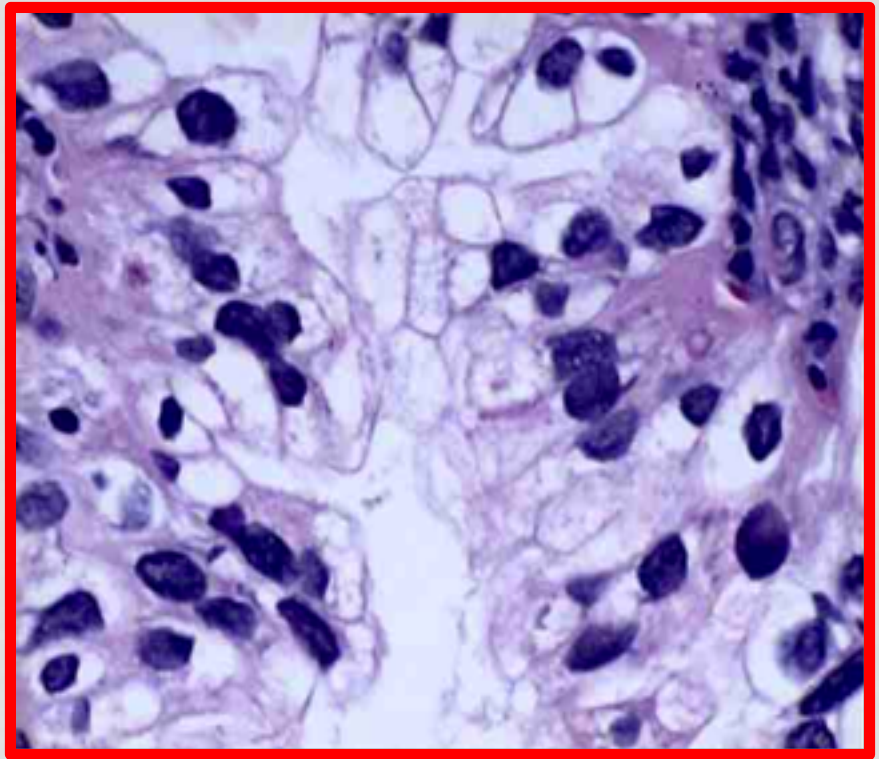


FIGURE 4-2 Cervical mucus arborization or ferning. (Photograph contributed by Dr. James C. Glenn.)

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

- basal cells near the squamocolumnar junction are likely to be prominent in size, shape, and staining → *estrogen induced*.
- Pregnancy is associated with both endocervical gland hyperplasia and hypersecretory appearance—**Arias-Stella reaction**—which makes the differentiation of these and atypical glandular cells on Pap smear particularly difficult



- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

- cervical glands undergo marked proliferation, and by the end of pregnancy, they occupy up to one half of the entire cervical mass.
- These normal pregnancy-induced changes represent an extension, or **eversion**, of the proliferating columnar endocervical glands.
- This tissue tends to be red and velvety and bleeds even with minor trauma, such as with Pap smear sampling.

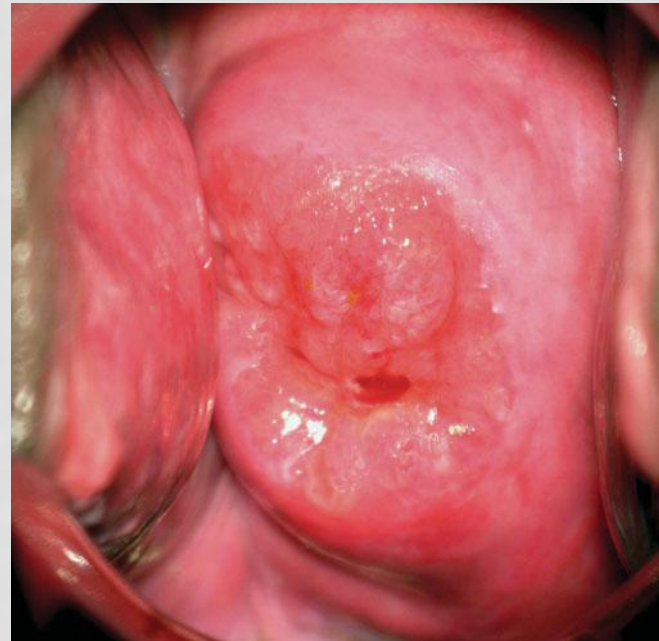


FIGURE 4-1 Cervical eversion of pregnancy as viewed through a colposcope. The eversion represents columnar epithelium on the portio of the cervix. (Photograph contributed by Dr. Claudia Werner.)

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

4. Braxton-Hicks contraction

- Painless irregular contractions which may be both palpable and visible
- Become more perceivable from 28th week AOG
- Increases in frequency when uterus is massaged or stimulated, or nearing term

5. Ballottement

- Sensation of something hard “bouncing” against the palm of examiner’s hands when uterus is moved from side to side
- **“Internal ballottement”** : examiner feeling the “bouncing” of fetal presenting part on examining finger during IE

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William’s Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition, Chapter 15 Diagnosis of Pregnancy

PROBABLE EVIDENCE

6. Outlining the fetus

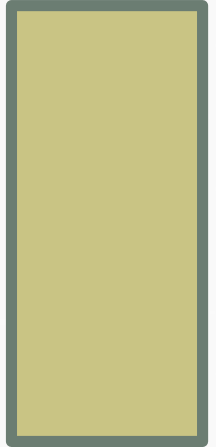
- Some fetal parts become palpable, esp if mother is non-obese

7. Endocrine tests

- **Human chorionic gonadotropin (hCG)** – supports early pregnancy by preventing involution of corpus luteum
- Levels increase from the day of implantation and peaks at 60-90 days (50,000 mIU); nadir at 14-16 weeks AOG

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

POSITIVE EVIDENCE



POSITIVE SIGNS OF PREGNANCY

- 1. Identification of fetal heart beat
 - FHR is usually at a range of 110-160 bpm
 - Detected through stethoscope at 18 weeks AOG
 - Detected through fetal Doppler at 10-12 weeks AOG
 - Other sounds audible through maternal abdominal wall:
 - a) Funic souffle/ umbilical cord souffle – umbilical arteries; sharp, whistling sound that is synchronous with the fetal pulse.
 - b) Uterine souffle – uterine arteries; soft, blowing sound that is synchronous with the maternal pulse; heard most distinctly near the lower portion of the uterus
 - c) Sound from fetal movement
 - d) Maternal pulse
 - e) Gurgling gas from mother's GI tract
- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

POSITIVE SIGNS OF PREGNANCY

- 2. Perception of fetal movement by the examiner
 - Examiner may feel fetal movement starting 20 weeks AOG
 - Fetal movements may be appreciated through ultrasound < 20 weeks
- 3. Recognition of embryo/fetus by ultrasound
 - Transvaginal ultrasound can assess early pregnancies better
 - 4-5 weeks AOG : gestational sac (GS)
 - ***A gestational sac—a small anechoic fluid collection within the endometrial cavity—is the first sonographic evidence of pregnancy.***
 - 6 weeks: fetal heart beat
 - Crown rump length (CRL) predictive of fetal AOG up to 12 weeks

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

POSITIVE SIGNS OF PREGNANCY

- Other potential indicators of early intrauterine pregnancy include:
 1. anechoic center surrounded by a single echogenic rim—the **intradecidual sign**—or two concentric echogenic rings surrounding the gestational sac—the **double decidual sign**
 2. Visualization of the **yolk sac**—a brightly echogenic ring with an anechoic center—confirms with certainty an intrauterine location for the pregnancy and can normally be seen by the middle of the fifth week.
 3. After 6 weeks, an **embryo** is seen as a linear structure immediately adjacent to the yolk sac, and cardiac motion is typically noted at this point.



FIGURE 9-3 Transvaginal sonogram of a first-trimester intrauterine pregnancy. The double decidual sign is noted surrounding the gestational sac and is defined by the decidua parietalis (*white asterisk*) and the decidua capsularis (*yellow asterisk*). The arrow notes the yolk sac, and the crown-rump length of the embryo is marked with measuring calipers. (Image contributed by Dr. Elysia Moschos.)

DIFFERENTIAL DIAGNOSIS

- 1. Pseudocyesis
 - Imaginary pregnancy/spurious pregnancy
 - May happen among women strongly desirous of pregnancy
 - Patient may feel signs and symptoms of pregnancy
- 2. Identification of fetal death
 - Ultrasound
 - Serial pelvic exam
 - Radiologic examination
 - **Spalding sign** – overlapping of the fetal skull due to liquefaction of brain
 - Exaggeration of fetal spine curvature
 - **Robert's sign** – demonstration of gas bubbles in the fetus

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

DIFFERENTIAL DIAGNOSIS

- 3. Molar Pregnancy
- 4. Ectopic Pregnancy

- Cunningham FG, Leveno KJ, Bloom SL, Spong CY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS (eds). William's Obstetrics 24th edition (2014); chapter 9 Prenatal care
- Sumpaico WW, Ocampo-Andres IS, Blanco-Capito LR, Diamante An, Gamilla ZN. (eds). Textbook of Obstetrics 3rd edition. Chapter 15 Diagnosis of Pregnancy

SUMMARY

Presumptive symptoms

1. Nausea with or without vomiting
2. Disturbances in urination
3. Fatigue
4. Patient's perception of fetal movement
5. Breast symptoms

Presumptive signs

1. Cessation of menstruation
2. Anatomical breast changes
3. Changes in vaginal mucosa
4. Skin pigmentation changes
5. Thermal signs

SUMMARY

Probable evidence

1. Abdominal enlargement
2. Changes in uterine shape, consistency and size
3. Changes in cervix
4. Braxton-Hicks contractions
5. Ballottement
6. Outlining of the fetus
7. Endocrine tests

Possible evidence

1. Fetal heart beat
2. Perception of fetal movement by the examiner
3. Recognition of embryo/fetus on ultrasound

SUMMARY

- Differential diagnosis of pregnancy
- Radiographic evidence of fetal demise
 - Spalding's sign
 - Roberts sign
 - Exaggeration of fetal spine curvature

QUIZ

1 This is a presumptive sign of pregnancy, whereby vaginal mucosa becomes congested and violaceous to bluish in color :

- a. Chadwick's sign
- b. Goodell's sign
- c. Hegar's sign
- d. Spalding sign

2. This is a probable sign of pregnancy characterized by the softening of the uterine isthmus, resulting in its compressibility on bimanual examination:

- a. Chadwick's sign
- b. Goodell's sign
- c. Hegar's sign
- d. Spalding sign

3. This is a probable sign of pregnancy characterized by cyanosis and softening of the cervix due to increased vascularity of the cervical tissue:

- a. Chadwick's sign
- b. Goodell's sign
- c. Hegar's sign
- d. Spalding sign

QUIZ

4. The beaded cellular pattern of the cervical mucus of a pregnant patient is due to which hormone?

- a. estrogen
- b. progesterone
- c. both
- d. neither

5. This is a probable evidence of pregnancy described as the sensation of something hard “bouncing” against the palm of examiner’s hands when uterus is moved from side to side.

- a. ballottement
- b. outlining of the fetus
- c. Hegar’s sign
- d. Spalding sign

6. This is the term used for imaginary pregnancy/spurious pregnancy which may happen among women strongly desirous of pregnancy, and where patient may feel signs and symptoms of pregnancy:

- a. Pica
- b. Pseudocyst
- c. Goodell’s sign
- d. Pseudocyesis

QUIZ

7. What is the expected fundic height of a patient who is in her 25th week age of gestation?

- a. 25 cms
- b. 22 cms
- c. 30 cms
- d. 20 cms

8. Radiologic sign of fetal death where there is noted overlapping of the fetal skull due to liquefaction of brain

- a. Spalding sign
- b. Roberts sign
- c. exaggerated fetal curvature
- d. Chadwick sign

9. A condition where a pregnant woman suffers from an extreme case of nausea and vomiting associated with hyperplacentosis, like multiple pregnancies or molar pregnancy:

- a. PICA
- b. Hyperemesis gravidarum
- c. Striae gravidarum
- d. Braxton Hicks

QUIZ

10. What is the fetus' approximate age of gestation when you palpate the uterine fundus midway between the symphysis pubis and the umbilicus?
- a. 20 weeks AOG
 - b. 12 weeks AOG
 - c. 16 weeks AOG
 - d. < 12 weeks AOG