Boston University Chobanian & Avedisian School of Medicine
Physician Assistant Program

Prenatal Care Workshop – Patient Case #3

Patient History: 37-year-old cis-woman G 3, P 0, 0-0-1-0 presents with an intrauterine pregnancy at 12 weeks. Three days ago she noted pink staining after intercourse and called the office. She was advised that this is normal and to avoid intercourse. This morning she noted darker staining and it has continued all morning with enough bleeding to put on a panty liner but not as heavy as a period. She denies recent intercourse, heavy lifting or heavy activity. No abdominal pain, cramps, dysuria, bloody tissue, vaginal discharge, nausea, diarrhea or fever. Last visit was at 8 weeks gestation with US showing normal pregnancy.

PMH: S/P TOP (termination of pregnancy) at 8 weeks 3 years ago; S/P carpal tunnel surgery age 33

FH: Both parents died at age 45 in car accident; sister 38 alive and well.

SH: married, lives with husband, English professor at a local college, non-smoker, no alcohol or recreational drugs

Q1. What is your differential diagnosis?

Threatened miscarriage

Missed miscarriage

Inevitable miscarriage

Complete miscarriage

Ectopic

Normal pregnancy

Cervical polyp

Cervicitis

Hemorrhoids

Notes: There is no cervical exam which would help us determine if this is an inevitable miscarriage and there is no report of a passage of tissue to suggest an incomplete miscarriage. The pregnancy looked normal at 8 weeks however during the intervening time this could have changed creating a missed miscarriage. Since the pregnancy was in the uterus at 8 weeks, an ectopic is unlikely but this is an important diagnosis not to be missed and there are rare cases of patients with both an intrauterine and ectopic pregnancy (heterotopic pregnancy).

Normal pregnancies often have some bleeding in the first trimester so this could be very normal. Pathologies of the cervix which cause spotting like polyps and cervicitis can cause bleeding in pregnancy. Constipation and resulting hemorrhoids are common in pregnancy too and hemorrhoidal bleeding may be hard to distinguish from vaginal bleeding.

Q2. Define the following diagnoses listed below and list the physical or lab findings which would support the diagnosis by filling in the table below. Note on terminology: This case uses the word miscarriage instead of the medical term abortion to prevent confusion for patients and learners. Medical texts may refer to miscarriage as abortion e.g., inevitable abortion instead of inevitable miscarriage.

Diagnosis	Definition	Physical findings	Lab or imaging findings
Missed miscarriage	The embryo or fetus is not viable, but the products of conception are retained in the uterus (in utero)	Uterus may be smaller on exam than expected for gestational age	Quantitative HCG titers fall, ultrasound shows fetal demise, no fetal heart, or abnormal appearance of yolk or gestational sac
Incomplete miscarriage	Expulsion of some, but not all, of the products of conception	Uterus may be smaller on exam than expected for gestational age; tissue may be seen at cervical os or in vagina; cervix may be open or closed	Quantitative HCG titers fall, ultrasound shows tissue in remaining in the uterus, cervix may be open
Threatened miscarriage	Refers to bleeding in pregnancy before 20th week, without dilation of cervix and without expulsion of products of conception	Cervix is closed; blood may or may not be seen in the os or vagina	Ultrasound is normal for gestational age with closed cervix
Inevitable miscarriage	Dilation of the cervix without expulsion of products of conception and/or fetus	Cervix is open; tissue may be seen at os or in the vagina	Ultrasound may be normal or may show a pregnancy which seems low in uterus, cervix is open
Septic miscarriage	Bacterial infection of products of conception, occurring before 20 weeks	Fever, hypotension, tachycardia, abdominal/pelvic pain. Exam shows tender uterus and there may be visible purulent discharge at cervical os or in the vagina	Leukocytosis with left shift, cultures of blood, cervix and/or tissue may be positive for pathogen

Complete Miscarriage	Complete expulsion of the products of conception before 20 weeks	Patient reports passage of tissue; uterine size smaller than expected for gestational age	Pathological examination of tissue shows products of conception with villi present; ultrasound shows no pregnancy

Physical Examination and Data:

VS: BP 126/78, P88, R11, T 98.6 F

Abdomen: soft non-tender, normoactive BS, no palpable masses

Pelvic: Small amount of blood at closed cervical os, uterus 12 week size, fetal heart rate at 148 bpm (normal 120 – 160 bpm)

Q3. What is your diagnosis now and why?

Threatened miscarriage. The cervix closed and a fetal heart is heard. There is no fever and exam does not suggest infection.

Q4. What would you tell this patient? Include suggestions for care, activity and follow-up.

Avoid intercourse, heavy lifting and physical exertion including exercise. Depending on her occupation, she may be able to return to work or you may want to suggest bedrest. Bedrest for threatened miscarriages is a time honored and traditional management however, there is little data to support it.

Follow-up – return or call office for increased bleeding, fever, cramps or pain or passage of tissue. All of these may signal that the diagnosis has changed and require evaluation. If there are no other symptoms, then you may have her keep her regularly scheduled appointments. Some clinicians like to have a follow-up visit in 1-2 weeks.

Next Day Visit

Patient returns the next day because of increased bleeding. She denies fever, abdominal pain, dysuria, or passing tissue. On exam, the cervical os appears is open with tissue at the os. Ultrasound shows pregnancy and no fetal heartbeat.

Q5. What is your diagnosis now and why?

Inevitable miscarriage. Once the cervical os is open, it cannot close, and miscarriage will occur at some point. The absence of a fetal heart with pregnancy still seen rules out a complete miscarriage and supports the diagnosis of inevitable miscarriage. If she had a closed cervix on exam and absent fetal heart, then this would be a missed abortion. If she passed tissue, then she could have a complete or

incomplete miscarriage. A complete miscarriage would mean all the pregnancy was expelled whereas an incomplete miscarriage would mean some of the products of conception are retained in utero.

Q6. What would you tell this patient? Include suggestions for care, activity and follow-up.

Once inevitable status or fetal death has been confirmed, patients may be offered surgical removal of the pregnancy, medical management or self-management. Labs must include a type and Rh if not already done and if the patient is Rh negative, Rh immune globulin should be administered to prevent sensitization.

Spontaneous miscarriage usually occurs soon after diagnosis. Patients will experience cramping, passage of tissue and bleeding which usually last 1-2 days. With patient education and guidance as to what to expect, home management is safe. Patient education should include instructions to return with heavy bleeding or if it does not occur within a certain time frame (usually 1-3 days) or if signs of infection occur like fever, foul odor or abdominal pain.

Medical management includes medication such as misoprostol to induce the inevitable miscarriage however it may not be available in all states and may not be acceptable to the patient. Medical management of miscarriage at home includes instructions to return with heavy bleeding or if it does not occur within 24- 48 hours or if signs of infection.

Surgical management may include a dilation and curettage (D&C) or suction curettage or a combination of both. Patients with an incomplete abortion usually require surgery to remove the remaining products of conception which could cause infection or hemorrhage if left in utero.

Miscarriage is a very common occurrence and about 25-30% of all pregnancies end in miscarriage. Most occur in the first trimester and are more common in gestations 12 weeks or less. Studies of the products of conception show a high prevalence of genetic abnormalities. Support groups for women who have miscarried may be found online or locally and can be helpful for patients. Knowing that it is a common occurrence is also helpful to patients.

Follow-up for patients should include an office visit in 1-2 weeks and referral to mental health if needed. Patients should be cautioned to report increased bleeding or pain, fever, foul vaginal odor, dizziness or syncope. They should be counseled to avoid intercourse until their visit. Iron may be needed if bleeding has been heavy. They may return to work and exercise when they feel they are able.