First Trimester Bleeding Cases

Case # 1:

You are the on-call resident at night for your practice. You receive a call early in the morning from Maria, who is a 26-year-old woman who reports vaginal bleeding for the past 2 hours. She tells you that she has an appointment for her initial prenatal visit next week, but is concerned that she may need to be seen sooner. What additional information do you need?

Maria tells you that her LMP was 5½ weeks ago and she first had a positive pregnancy test 2 days ago, which is when she made her prenatal appointment. She describes a small amount of brown blood in her underwear and when wiping and she has not needed to use a pad. She is having some mild lower abdominal cramping and denies symptoms of acute blood loss. She does not know her blood type, but does not remember having a shot when her daughter was born. Based on this information, what is your plan?

Maria meets you at the office the following morning. She is still experiencing some spotting, but otherwise has no other symptoms. You assess her feelings about this pregnancy and she tells you she is very worried about the bleeding as she has been trying to get pregnant for months and she is very excited about the possibility of a sibling for her daughter. What do you do next?

Maria's exam: BP: 113/75, P: 80, RR: 14, Pox: 100% Speculum: closed cervix, some brown blood in vaginal vault Bimanual exam: uterus 5-6 weeks size, no uterine or adnexal masses or tenderness

Is it safe to reassure Maria and have her follow up for initial prenatal visit next week?

Ultrasound shows a gestational sac measuring 7mm and a yolk sac without a fetal pole.



What is your diagnosis? What is your plan? How do you counsel Maria? If her exam had shown an open cervix with visible POC how would your diagnosis and plan change?

Maria's blood work comes back as O+. You call her and let her know that she does not need Rhogam. Her initial quant is 3090 and 48 hours later rises to 6,070. Maria returns one week later. She has had no further bleeding and her only complaint is of nausea. Repeat U/S shows a gestational sac, yolk sac and fetal pole measuring 4mm with fetal heart tones seen on U/S.



How do you counsel Maria?

Case # 2:

You are seeing Aisha for her initial prenatal visit. She is a 20 year old G2P0010 with no medical problems. Her LMP was 8 weeks ago. Aisha tells you that although this pregnancy was unplanned she is excited to have a baby, her mother is very supportive, and she has decided to continue the pregnancy. She states that she experienced several episodes of vaginal bleeding over the past week, but her sister told her that that was normal. She quantifies the bleeding as light, "like the end of a period". She has had some mild cramping as well. Initially she had experienced some nausea, but that has subsided over the past week or so. Her physical exam shows a closed cervix and she has an approximately 6-week sized uterus on bimanual exam. Ultrasound reveals a gestational sac, yolk sac and 15mm CRL with no fetal cardiac activity seen.



What is your diagnosis? What is your plan? How do you counsel the patient?

What if Aisha's ultrasound had showed a gestational sac measuring 22mm with no yolk sac and no fetal pole?



Case # 3:

Colleen is 36 years old and comes to you with a complaint of intermittent vaginal spotting, nausea, and breast tenderness for the past week. She tells you that she couldn't possibly be pregnant as she has a copper IUD in place. She thinks her last menstrual period was about 6 weeks ago. To be sure you check a pregnancy test and are surprised when it comes back positive. What is your biggest concern? What do you do next?

On exam Colleen's vitals are stable, her IUD strings are visible 2cm from os, the os is closed with no blood in vault and she has no appreciable adnexal mass or tenderness.

What is your plan from here?

You discuss the positive pregnancy test with Colleen and your concern for a pregnancy outside of the uterus. Colleen tells you that she does not want to be pregnant right now and will not continue the pregnancy. You draw a quant and Rh typing and send Colleen for an urgent ultrasound. The ultrasound shows no IUP, thickened endometrial stripe, fundal IUD, a 2cm complex adnexal mass and a small amount of fluid in the cul-de-sac.



The quantitative HCG comes back as 4100. What is your diagnosis? What is your plan?

Case # 4:

Tania is a 28 year old woman who had a positive pregnancy test over the weekend. Last night she developed some mild midline cramping and spotting. She is worried that she is having a miscarriage. Her menses are regular and she has been trying to get pregnant for the past several months. LMP was 4½ weeks ago. What do you do next?

Ultrasound shows thickened endometrial stripe but no IUP, no fluid in the cul-de-sac and normal adnexa. The β -hCG is 300 and the patient is RH positive with a hemoglobin of 12.5.



Does this US result surprise you? What is your differential? What is your plan?

Repeat β -hCG is 400. How do you counsel the patient?

Tania continues to have some cramping and spotting. Repeat β -hCG is 150. What is your differential diagnosis now? What is your plan?

Case # 5:

Jessica is a G2P1 at 7 weeks by sure LMP who presents to your office with 4 days of cramping and vaginal bleeding as heavy as a period with some blood clots. She hasn't taken a urine pregnancy test yet but thinks she has had a miscarriage and would like to confirm this. You check a urine pregnancy test and it is positive. On exam she is hemodynamically stable, with blood trickling from closed os, no POC visible, no adnexal mass or tenderness. What is your differential diagnosis at this point and why?

What do you do next?

The ultrasound shows no IUP, a small amount of fluid in the cul-de-sac.



The β -hCG is 2370. Rh negative, hemoglobin 11.2. How does this change your differential diagnosis and what do you do now?

Two days later the repeat β -hCG has fallen to 710. Her bleeding has tapered to less than a period with intermittent cramps. The patient is planning to go out of town for a week vacation. How do you counsel her? Is it safe for her to go on vacation? Does she need any further testing?

References

- 1. Chen BA, Creinin MD. Contemporary management of early pregnancy failure. *Clin Obstet Gynecol.* 2007;50(1):67–88.
- 2. Doubilet, Peter M., et al. "Diagnostic criteria for nonviable pregnancy early in the first trimester." *New England Journal of Medicine* 369.15 (2013): 1443-1451.
- 3. Barnhart KT, Sammel MD, Rinaudo PF, Zhou L, Hummel AC, Guo W. Symptomatic patients with an early viable intrauterine pregnancy: HCG curves redefined. *Obstet Gynecol*. 2004;104(1):50-55
- 4. Poulose T, Richardson R, Ewings P, Fox R. Probability of early pregnancy loss in women with vaginal bleeding and a singleton live fetus at ultrasound scan. *J Obstet Gynecol.* 2006;26(8):782–784.
- 5. Jeve Y, Rana R, Bhide A, Thangaratinam S. Accuracy of first-trimester ultrasound in the diagnosis of early embryonic demise: a systematic review. Ultrasound Obstet Gynecol. 2011 Nov;38(5):489-96.
- 6. MacIsaac, Laura, and Eve Espey. "Intrauterine Contraception: The Pendulum Swings Back." *Obstetrics and gynecology clinics of North America* 34.1 (2007): 91–111, ix. Print.
- 7. Silva, Celso, Mary D. Sammel, Lan Zhou, Clarisa Gracia, Amy C. Hummel, and Kurt Barnhart. "Human chorionic gonadotropin profile for women with ectopic pregnancy." Obstetrics & Gynecology 107, no. 3 (2006): 605-610