DISCLOSURES/DISCLAIMERS:

The OBGYN Delivered student team has no relevant financial disclosures. The Ultrasounds podcast is for educational and informational purposes only and should not be considered medical advice. Please do not use any of the information presented to treat, diagnose, or prevent real life medical concerns. The statements made on this podcast are solely those of the OB/GYN Delivered hosts and guests and do not reflect the views of any specific institution or organization.

SUMMARY: Sarena and Kavya discuss four vignettes on second trimester bleeding with Sam Kempner, MD.

TIMESTAMPS:

00:40 **Dr. Sam Kempner Biography**

02:42: **Case 1: 23-year-old G3P0200 at 21 weeks gestation presenting with vaginal spotting.**

05:40: **Case 2: 36-year-old nonbinary patient at 26 weeks gestation coming to the office due to vaginal bleeding.**

08:20: **Case 3: 41-year-old G3P2 at 27 weeks gestation with Di di twins coming into the office because she noticed bright red blood on her toilet paper**

10:06: **Case 4: 35-year-old G1P0 at 26 weeks one day who comes to triage due to decreased fetal movement**

12:56: **Wrap-up**

LINKS:

Dr. Sam Kempner Bio
ACOG Early Pregnancy Loss Practice Bulletin
Hendriks, E., MacNaughton, H., & MacKenzie, M. C. (2019). First trimester bleeding: evaluation and management. American family physician, 99(3), 166-174.
Dugas, C., & Slane, V. H. (2021). Miscarriage. In StatPearls. StatPearls Publishing.
Dogra V, Paspulati RM, Bhatt S. First trimester bleeding evaluation. Ultrasound Q. 2005 Jun;21(2):69-85; quiz 149-50, 153-4. PMID: 15905817.
ACOG Bleeding During Pregnancy FAQ
ACR Appropriateness Criteria Second and Third Trimester Bleeding
NHS Bleeding in the Second Trimester of Pregnancy
UpToDate: Overview of the etiology and evaluation of vaginal bleeding in pregnancy
ACOG Second-Trimester Abortion Practice Bulletin

TRANSCRIPT:

Sarena: Welcome to our episode on 2nd trimester uterine bleeding. I'm Sarena Gill.

Kavya: And I'm Kavya Davuluri.

Sarena: And we're the medical student host for this episode. If you haven't tuned in to our first episode on 1st trimester Bleeding, we highly recommend that you start there. Returning for this episode is Doctor Kempner.

Doctor Kempner is an assistant professor of Obstetrics and Gynecology at the University of Michigan. She received her medical degree from the University of Michigan and completed her residency training at Duke University Medical Center. She then joined Michigan Medicine faculty in 2012 as part of the Women's Health Division. At Michigan medicine Dr. Kempner has been recognized for her outstanding teaching contributions to both the medical school and the OBGYN Residency Training Program. Her clinical interests include family planning, obstetrics, and minimally invasive gynecological procedures. She is passionate about providing health services to patients on an equal basis regardless of sexual orientation, gender identity, marital status and other non-medically relevant factors. In her free time, she enjoys both running for exercise and running after her two young daughters. On a personal note, Doctor Kempner is one of my faculty career advisors through the medical school, so it's so exciting to have you here with us today.

Thank you for being here.

Dr. Kempner: Hi, thanks for having me back.

Kavya: Doctor Kempner, before we start chatting about second trimester uterine bleeding something I like to ask all the attendings I work with is what would you have done if you hadn't become an OB GYN or even gone to medical school?

Dr. Kempner: Well, that's pretty easy. I taught high school science for a year before going back to medical school and I liked it so much. I briefly toyed with the idea of not applying to medical school. Not enough to not apply to medical school, and I still can't imagine doing anything other than being an OB GYN who works in a medical school. But, I just enjoy teaching very much and I'm sure there's other jobs out there that involve education that I could find a happy place in.

Sarena: Well, we certainly benefit from having your educational abilities for us going forward, both with learning our first year in the basic science format and also in the clinical setting. As much as I'm sure you would have been an excellent science teacher, we're happy to have you as a medical teacher as well. All right let's move to our first patient in our second trimester, bleeding.

We have a 23-year-old G3P0200 at 21 weeks gestation presenting with vaginal spotting. She is anxious and shares that she had similar spotting in her last two pregnancies around 23 weeks and then experienced very sudden and painless vaginal delivery. Ultrasound shows a live intrauterine pregnancy consistent with gestational dating and a cervical length of 2.7 centimeters. The cervical OS is closed on pelvic exam. What is the next best step for this patient?

Kavya: Yeah, so the first line of this question really has an important piece of information which are the patients Gs and Ps or her G and her TPAL information which gives her obstetric history. So G3 stands for gravity three meaning that including the current pregnancy, she's been pregnant thrice. T0 means that she's had no term pregnancies. P2 means that she's had two preterm deliveries. A0 means that she's had no abortions, either, medical or spontaneous, and L0 means that sadly she has no living children, so that is definitely something that I picked up on. Also, whenever I hear about a history of second trimester, precipitous vaginal deliveries, I always have to think about cervical insufficiency.

I remember the diagnostic criteria for it are a second trimester cervical length of less than 2.5 centimeters plus a prior preterm delivery. Or a painless cervical dilation in the current pregnancy. Or two or more prior consecutive painless second trimester losses with vaginal delivery. So obviously with this patient, she doesn't have a shortened cervix, or painless cervical dilation, but her history of the two consecutive second trimester losses would make me diagnose her with cervical insufficiency, and I would recommend a cerclage placement.

Ideally though, wouldn't she have gotten a prophylactic cerclage placed in her first trimester of Dr Kempner?

Dr. Kempner: Yeah, I think a patient like this would have certainly qualified for a what we call a history indicated cerclage based on her prior obstetrical history of two losses due to painless cervical dilation.

I would hope, that this patient could have gotten a cerclage earlier in pregnancy, like early 2nd trimester would have been ideal timing.

Sarena: With this presentation, would you be able to put a cerclage in at that point?

Dr. Kempner: So at this point she's not dilated yet, so it gets a little bit tricky, because this would not fall under the category of a rescue cerclage, but I think it would certainly be a reasonable consideration for her. I would certainly send her for a high-risk consult and consider vaginal progesterone versus cerclage placement, but this is a patient that would have definitely benefited from early conception care to talk about an earlier cerclage placement. Because like I said, the ideal time would have been earlier.

Sarena: Our next patient is a 36-year-old nonbinary patient at 26 weeks gestation coming to the office due to vaginal bleeding. The patient has had intermittent but painless vaginal bleeding for the past week, which increases after they have intercourse on pelvic exam. There is dark brown vaginal blood. The cervix is closed, but there is a slightly raised cervical mass that bleeds when touched by the speculum. Ultrasound shows a live intrauterine pregnancy consistent with the stated gestational age. What is the best next step in management of this patient?

Kavya: Yeah, whenever I see painless bleeding after intercourse, AKA post coital bleeding, I think of a cervical neoplasia or maybe even an endometrial polyp. Given that the physical exam shows a mass on the cervix that is very friable and bleeds with minimal touch, I think that I would be concerned for cervical neoplasia in this patient and recommend a cervical biopsy. While it could be a polyp, either endometrial or cervical, I would expect that to be a little bit more sessile in appearance, and I think it's important to remember with this question that while patients who are pregnant have a whole host of other differentials that we definitely have to consider, when the rest of the physical exam, including the fetal exam, are reassuring, like in this patient, we've got to remember that they might have a non-obstetric but regular gynecological issue at hand too.

Dr. Kempner: Yeah, post coital bleeding always makes me concerned about cervical neoplasia and certainly it's very common to see a friable cervix or prominent ectropion or inverted cervical mucosa on exam, but if you see a suspicious looking mass biopsying something on the outside the cervix is certainly something that you can and should do during pregnancy to rule out neoplasia.

Sarena: Are there any other considerations Dr. Kempner, that you would have given that this patient is pregnant when you're working up the possible neoplasia?

Dr. Kempner: I mean, I guess I would just want to take a more complete history and see if they had any history of abnormal PAP smears and when their last ones were. But just the friable cervix could be a lot of sort of infectious causes, so I would do a complete work up for any sort of vaginitis that could be causing it. But with a mass on the cervix that doesn't sound like a polyp, neoplasia would certainly be the most concerning. You wouldn't expect nabothian cyst to bleed necessarily, so if the mass is bleeding it would be less likely to be a nabothian cyst.

Sarena: All right, that's a helpful broader differential to consider beyond the cervical neoplasia as well.

We'll move to our next patient, a 41-year-old G3P2 at 27 weeks gestation with Di-di twins coming into the office because she noticed bright red blood on her toilet paper recently. She denies any abdominal pain, loss of fluids or decrease in fetal movement. She does endorse constipation and intermittent genital itching with some discomfort around her anus. Ultrasound shows 2 live intrauterine pregnancies with reassuring heart rates. Pelvic exam is unremarkable, but while completing it you notice scratch marks around the anus, as well as a small mass protruding from the anal verge. What is the most likely diagnosis for this patient, Kavya?

Kavya: Yeah, as someone who completed a colorectal surgery rotation, I'm far too familiar with this unfortunate diagnosis. So let's get started with what the patient shared. Blood when she wipes, so likely after a bowel movement or urination. Constipation and some genital itching with anal discomfort. I'm not really hearing many things that would make me think obstetric or gynecological concern, especially when the fetal ultrasound and the pelvic exam are normal. So given the patient's symptoms and physical exam findings, I think that this patient sadly might have hemorrhoids, which pregnancy can be a risk factor for.

Dr. Kempner: I don't think that's sad at all. I'm happy to have a non-obstetric cause and something that we can tell them will hopefully get better after delivering, a little bit worse before it gets better. But yeah, it's a relatively benign but uncomfortable cause. I'm actually usually happy to give people that bad news. But yes, I'm also traumatized by my medical school colorectal surgery rotations, so I feel your pain.

Kavya: Glad to know, it wasn't just me.

Sarena: All right, we'll move to our next patient. A 35-year-old G1P0 at 26 weeks one day, who comes to triage due to decreased fetal movement. Ultrasound shows absent cardiac motion and the diagnosis of fetal demise is made. Kavya, what do you think is the next best step for this patient?

Kavya: Yeah, so the biggest thing that I want to consider here is where we are in the pregnancy and what is safest for the mother. Because she's in her second trimester after 24 weeks, I would say that induction of vaginal delivery would probably be recommended. I think that she is passed the gestational age where medication abortion would be appropriate, or maybe even like a dilation and evacuation might be. It might be too late for that as well.

Dr. Kempner: Yeah, in these sad cases I certainly would want to move forward with getting her delivered. You worry about the increasing risk of DIC with intrauterine fetal demise, so moving towards delivery and hopefully kind of as I mentioned with first trimester losses, just anytime there's a pregnancy loss, giving people answers can be very helpful for them. So offering to do all the testing of the fetus, doing an autopsy, sending the placenta to pathology to get answers can be very helpful. I

would counsel this patient though, with a vaginal delivery there is a very high risk of retained placenta. I mean the umbilical cord and the placenta are going to be very small in this situation, so talking about the chance that she may still have a high likelihood of going to the OR for removal of the placenta, just to help manage expectations during this really emotionally challenging time.

Kavya: Yeah. Doctor Kempner in your practice what do you tend to see as the most common reason for vaginal bleeding in the second trimester?

Dr. Kempner: Well, that's a great question. I mean, I think when you read about it, I seem to remember in medical school thinking that placenta previas were everywhere and that is what I was going to be constantly seeing. But in the second trimester, really, I think a nonobstructive cause of the bleeding is usually the most common. You can have just a friable cervix or vaginitis or like the hemorrhoid one. I laughed out loud when I saw you talking about that, because that is so common for people to have bleeding from non-obstetric reasons. So I'd say the most common is probably just a friable cervix from a yeast infection or just increased blood flow to the area.

Kavya: And I think that's something that you just mentioned is super important for us to mention as a caveat to our listeners is that things that we are mentioning in this episode could happen in the third trimester and vice versa. And I think that pregnancy is definitely a spectrum, and as much as we divide it up into trimesters, occurrences are not discrete, and so things that can definitely happen all over the place.

Dr. Kempner: Absolutely.

Sarena: Doctor Kempner having your insights as a clinician is so valuable for those of us learning about how to approach obedient patient scenarios. Thank you so much for taking the time to join us for this episode today.

Kavya: To our listeners. Thanks for tuning into this episode on uterine bleeding during pregnancy. Subscribe to UltraSounds wherever you get your podcasts. For more high yield topic reviews, you can also follow us on Instagram or Twitter at obgyn_delivered or find more topic review outlines and free question banks at our website www.obgyndelivered.com and always remember we put in the labor so you can deliver.