تشخیص وارزشیابی خونریزی دوران بارداری

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vaginal bleeding in pregnancy

Contents | Calculators | Drug Interactions | UpToDate Pathways

Back

Overview of the etiology and evaluation of vaginal bleeding in pregnancy

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Contributor Disclosures

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Introduction

- Bleeding from the vagina is a common event at all stages of pregnancy. The source is virtually always maternal, not fetal.

- The clinician typically makes a provisional clinical diagnosis based upon the gestational age and the character of bleeding (eg, light or heavy, associated with pain or painless, intermittent or constant).

Introduction

- The timing and setting for evaluation of bleeding depend upon the severity.

- Begin rapid assess& treatment If the patient is hemodynamically unstable (hypotension, tachycardia, orthostasis [systolic blood pressure decline of ≥20mmHg or diastolic blood pressure decline of ≥10 mmHg or heart rate increase of ≥30 beats/minute present after 3 minutes of standing, syncope])

❑ FIRST-TRIMESTER BLEEDING

• Vaginal bleeding is common in the first trimester (up to 13+6 weeks), occurring in 20 to 40 percent of pregnancies.

• Bleeding can be any combination of light or heavy, intermittent or constant, painless or painful.

Causes

The five major sources of nontraumatic bleeding in early pregnancy are:

1.Ectopic pregnancy
2.Early pregnancy loss
3.Threatened abortion
4.Implantation of the pregnancy
5.Cervical, vaginal, or uterine pathology (eg, polyps, inflammation/infection, gestational trophoblastic disease)

- Bleeding related to early pregnancy loss or threatened abortion is the most common nontraumatic cause of first-trimester bleeding (prevalence: 15 to 20 percent of pregnancies). Although bleeding may be heavy, almost all patients remain hemodynamically stable; only an approximate 1 percent of expectantly managed patients require blood transfusion.

- Ectopic pregnancy is much less common (prevalence: 2 percent of pregnancies) but is the most serious etiology of first-trimester bleeding.

- **Evaluation** — The goal of the evaluation is to make a definitive diagnosis when possible and exclude the presence of serious pathology in the remaining cases .
- Ectopic pregnancy is particularly important to exclude since it can be life-threatening.

History

- The extent of bleeding should be determined:

Is the patient passing blood clots or is the blood soaking through her clothes?

Do they feel light headed?

Do they have significant pelvic pain or cramping?

Have they passed any tissue?

- What is the patient's medical history?

A past history of ectopic pregnancy or risk factors for ectopic pregnancy increase the probability of this disorder. A history of two or more consecutive early pregnancy losses or a condition associated with early pregnancy loss (eg, chromosomal translocation in either parent, maternal antiphospholipid syndrome, uterine anomaly) increases the likelihood that bleeding is related to impending pregnancy loss.

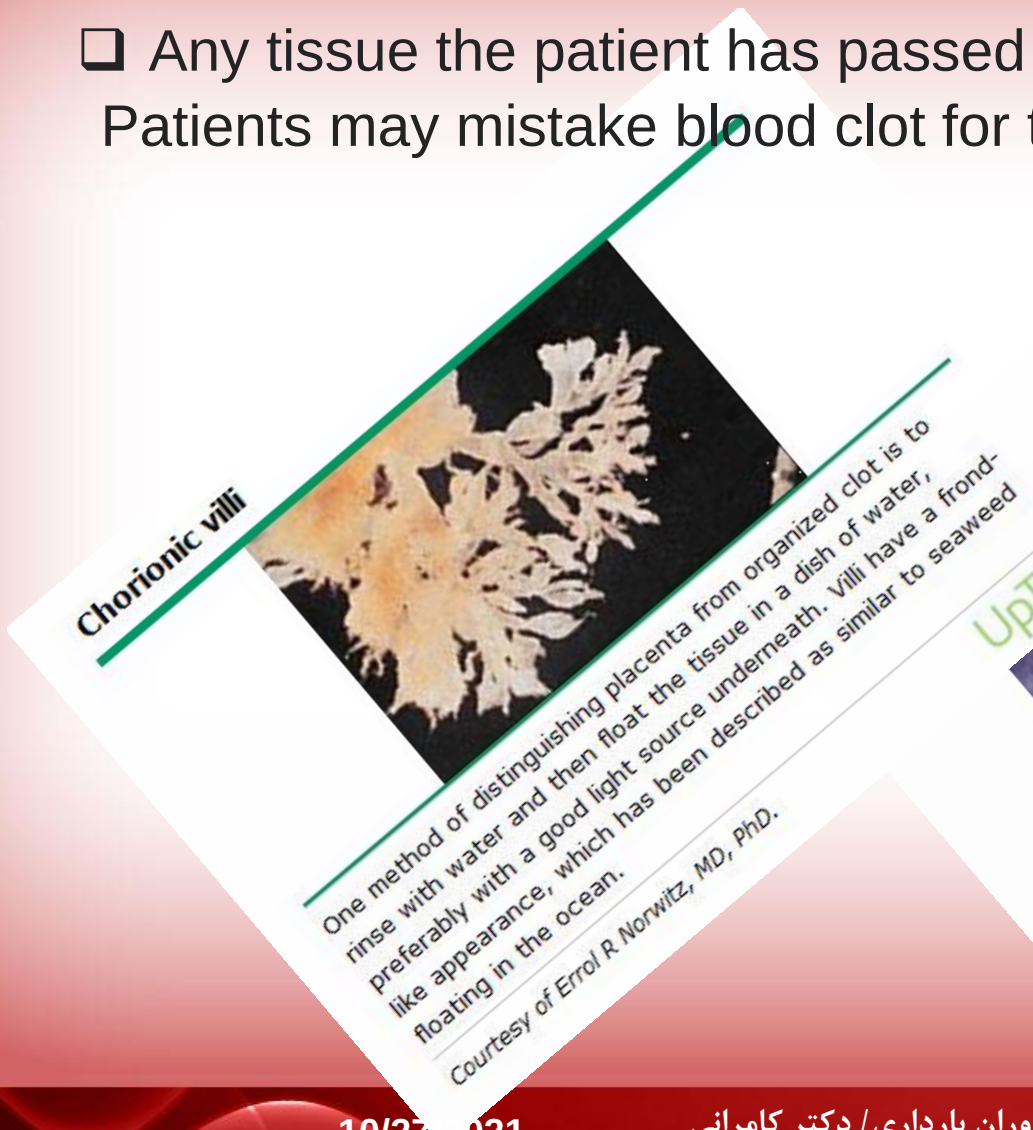
Risk factors for ectopic pregnancy compared with pregnant controls

Degree of risk	Risk factors	Odds ratio
High	Previous ectopic pregnancy	2.7 to 8.3
	Previous tubal surgery	2.1 to 21
	Tubal pathology	3.5 to 25
	Sterilization	5.2 to 19
	IUD	
	- Past use	1.7
	- Current use	4.2 to 16.4
	- Levonorgestrel IUD	4.9
	In vitro fertilization in current pregnancy	4 to 9.3
Moderate	Current use of estrogen/progestin oral contraceptives	1.7 to 4.5
	Previous sexually transmitted infections (gonorrhea, chlamydia)	2.8 to 3.7
	Previous pelvic inflammatory disease	2.5 to 3.4
	In utero DES exposure	3.7
	Smoking	
	- Past smoker	1.5 to 2.5
	- Current smoker	1.7 to 3.9
	Previous pelvic/abdominal surgery	4
	Previous spontaneous abortion	3
Low	Previous medically induced abortion	2.8
	Infertility	2.1 to 2.7
	Age ≥40 years	2.9
	Vaginal douching	1.1 to 3.1
	Age at first intercourse <18 years	1.6
	Previous appendectomy	1.6

IUD: intrauterine device; DES: diethylstilbestrol.

Physical examination

- Any tissue the patient has passed should be examined. Patients may mistake blood clot for the products of conception.



1. Abdominal Examination

- An abdominal examination should be performed before the internal examination.

Midline pain is more consistent with early pregnancy loss, while lateral pain is more consistent with ectopic pregnancy.

Nongynecologic causes of pain should also be considered.

- The clinician should determine whether uterine size is appropriate for the estimated gestational age.

The normal uterus is nontender, smooth, and firm.

- If the pregnancy is at or beyond 10 to 12 weeks of gestation, a handheld Doppler ultrasound device can be used to check the fetal heartbeat.

2. Speculum Examination

- After the abdominal examination, to assess the volume and source of bleeding.

- If blood clots, products of conception, or both are present, they must be examined.

Continue…

- Speculum examination may reveal a source of bleeding unrelated to pregnancy as:

❖ Vaginal neoplasm

- ❖ Vaginal warts
- ❖ Vaginal discharge
- ❖ Cervical polyps, fibroids, ectropion
- ❖ Mucopurulent cervical discharge at the cervical os
- ❖ Cervical neoplasm

Visualization of the internal cervical os is possible in some cases and helps to distinguish between a threatened and a true early pregnancy loss:

- A closed internal cervical os is most consistent with a threatened abortion, but not diagnostic.

If the internal cervical os appears closed and there are no obvious bleeding lesions, the speculum is removed and a bimanual pelvic examination is performed:

- With an ectopic pregnancy, findings on pelvic examination may include adnexal, cervical motion, or abdominal tenderness; an adnexal mass; and mild uterine enlargement.

However, the physical examination is often unremarkable in a patient with a small, unruptured ectopic pregnancy.

- In contrast to the internal os, an open external cervical os is usually not helpful diagnostically because it is a normal finding, especially in parous patients.

- Uterine size larger than expected for dates suggests a multiple gestation, possibly with demise of one of the multiples; gestational trophoblastic disease (eg, molar pregnancy); or other uterine pathology (fibroids often cause irregular uterine enlargement).

Important Note

• One review of data from observational studies concluded that ultrasound examination and human chorionic gonadotropin (hCG) concentration could replace pelvic examination in the initial evaluation of patients with early pregnancy bleeding. However, some diagnoses will be missed with this approach (eg, bleeding from cervical or vaginal lesions), this combination of tests may not distinguish between a complete early pregnancy loss and an ectopic pregnancy (both will have an empty uterus and positive hCG), and the additional cost of these tests can be avoided in some patients. For example, in bleeding patients in whom sonography has previously confirmed a viable singleton intrauterine pregnancy, another examination is not necessary to exclude ectopic pregnancy or to confirm fetal viability if fetal heart motion can be detected by a handheld Doppler device. Additionally, there is no value in checking the hCG concentration once the presence of an intrauterine pregnancy has been established sonographically.

Transvaginal ultrasonography

- It is the cornerstone of the evaluation of bleeding in early pregnancy.

The possibility of heterotopic pregnancy should always beconsidered.

It is important to note that the absence of an intrauterine gestational sac is highly suggestive of ectopic pregnancy if more than 5.5 to 6 weeks have elapsed since the first day of the patient's last menstrual period. At earlier gestational ages, however, an intrauterine pregnancy may be present, but not yet identifiable, by ultrasound .In these cases, sonographic findings are correlated with hCG levels.

Timing of first appearance of gestational landmarks on transvaginal ultrasound examination

Landmark	First appearance on transvaginal ultrasound examination
Gestational sac	4.5 to 5 weeks
Yolk sac	5 weeks
Cardiac activity	5.5 to 6 weeks
Measurable crown-rump length	6 weeks

The yolk sac is visible when the mean gestational sac diameter (MSD) is 8 mm and fetal cardiac activity can be observed when MSD is 16 mm. For transabdominal sonograms, the corresponding MSDs are larger than 20 and 25 mm, respectively. MSD = (length + height + width of the gestational sac)/3. In addition, MSD(mm) +30 = gestational age(days).

• In bleeding patients in whom sonography has previously confirmed a viable singleton intrauterine pregnancy, another examination is not necessary to confirm fetal viability if fetal heart motion can be detected by a handheld Doppler device.

Other imaging tests

- In the first trimester, transabdominal ultrasound imaging is useful for assessing free fluid in the abdomen and abnormalities beyond the field of view of a high-frequency vaginal probe.
- Magnetic resonance imaging (MRI) is rarely indicated but may be used as a second-line imaging modality for further evaluation of limited and nondiagnostic ultrasound, an unusual ectopic pregnancy, gestational trophoblastic disease, and differentiating causes of severe pelvic pain and adnexal masses.
- Computed tomography (CT) may be useful in pregnant patients with trauma or acute nongynecologic pain, for staging of malignancy, or if magnetic resonance imaging is not possible.

Laboratory tests

- There is no role for monitoring hCG concentration once the presence of an intrauterine pregnancy has been established sonographically. Serial measurements of hCG are helpful during the first six weeks of pregnancy if ultrasonography is nondiagnostic .

- Other hormone assays (eg, progesterone, estrogen, inhibin A, pregnancy-associated protein-A [PAPP-A]) are less useful than hCG.

• **Ectopic pregnancy** — All patients with early pregnancy bleeding and pain are assumed to have ectopic pregnancy until this diagnosis has been excluded by laboratory and imaging studies. Patients with a history of ectopic pregnancy or other risk factors for the disorder are at highest risk, but many patients with ectopic pregnancy have no risk factors.

Serum HCG Level

• Some institutions set the discriminatory zone at 2000 and others use 3510 milli-international units/mL (for transabdominal ultrasound, the discriminatory zone is higher: approximately 6500 milli-international units/mL). Setting the discriminatory zone at 3510 international units/L minimizes the risk of interfering with a viable singleton intrauterine pregnancy, if present, although it increases the risk of delaying diagnosis of an ectopic pregnancy. The absence of a sonographically identifiable intrauterine pregnancy when the hCG concentration is greater than the discriminatory threshold is not absolute proof of ectopic pregnancy because of the possibility of a very early multiple gestation (hCG levels are higher in multiple gestations).

• Other findings that should be considered when making a diagnosis are whether an adnexal mass is present and the likely etiology of the mass (ectopic pregnancy versus corpus luteum cyst) and whether the patient is hemodynamically unstable or has a tender abdomen, which suggests a ruptured ectopic pregnancy or corpus luteum cyst.

• Even if an intrauterine pregnancy is diagnosed, the possibility of heterotopic pregnancy should be kept in mind, even though rare (1 in 30,000 pregnancies). This is particularly important in patients who conceived via assisted reproductive technology (ART) since they are at increased risk of this pregnancy complication (1.5 per 1000 ART pregnancies).

Early pregnancy loss

- **Threatened abortion** — Vaginal bleeding in the presence of a closed cervix and sonographic visualization of an intrauterine pregnancy with detectable fetal cardiac activity is diagnostic of threatened early pregnancy loss.
- In fact, 90 to 96 percent of pregnancies with both fetal cardiac activity and vaginal bleeding at 7 to 11 weeks of gestation are not lost and ongoing.
-

Early pregnancy loss

- **Complete pregnancy loss** —A complete early pregnancy loss can be distinguished from an ectopic pregnancy by examining the tissue that was passed to confirm products of conception, by demonstrating falling rather than rising or plateaued hCG levels, and by patient description of diminishing bleeding and pain. No further intervention is needed for complete early pregnancy loss if chorionic villi are identified by pathologic examination of the products of conception. However, if no villi are identified or no specimens are available for pathologic examination, then serum hCG levels should be followed serially until the level is undetectable.

- **Incomplete early pregnancy loss :**This is most common in the late first trimester and early second trimester. On examination, the internal cervical os is open, gestational tissue may be observed in the cervical canal, and the uterine size is smaller than expected for gestational age, but not well contracted. The amount of bleeding varies, but can be sufficiently severe to cause hypovolemic shock. Painful cramps/contractions are often present. Ultrasound reveals tissue in the uterus. Medical or surgical evacuation is generally performed.

- **Missed abortion** — A missed abortion refers to in-utero death of the embryo or fetus prior to the 20th week of gestation, with retention of the pregnancy for a prolonged period of time.
- Patients may notice that symptoms associated with early pregnancy (eg, nausea, breast tenderness) have abated and they do not "feel pregnant" anymore. Vaginal bleeding may occur. The internal cervical os usually remains closed. Ultrasound reveals an intrauterine gestational sac with or without an embryonic/fetal pole, but no embryonic/fetal cardiac activity. Management may be expectant or a medical or surgical intervention to complete process can be undertaken.

• **Vanishing twin** — The term "vanishing twin" has been used to describe a singleton pregnancy which results from very early loss of one member of a multiple gestation. Vanishing twins are often the product of assisted reproduction techniques and can be associated with vaginal bleeding.

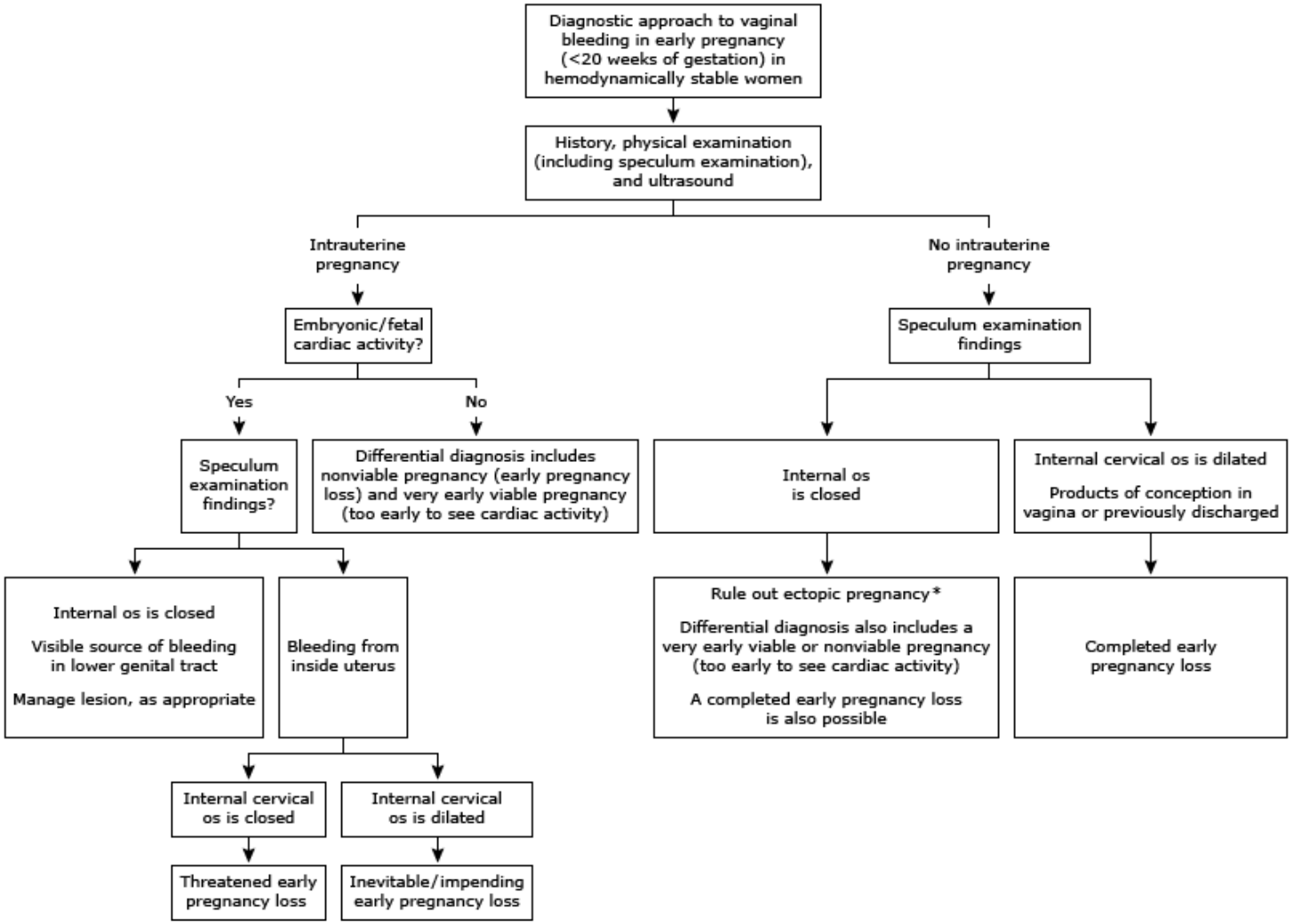
• **Physiologic or implantation bleeding** — This is a diagnosis of exclusion. It is characterized by a small amount of spotting or bleeding approximately 10 to 14 days after fertilization (at the time of the missed menstrual period), and is presumed to be related to implantation of the fertilized egg in the decidua (ie, lining of the uterus), although this hypothesis has been questioned .No intervention is indicated.

Prognosis

Studies consistently show an association between first-trimester bleeding and adverse outcome later in pregnancy (eg, early pregnancy loss, preterm birth, preterm prelabor rupture of membranes, fetal growth restriction) .The prognosis is best when bleeding is light and limited to early pregnancy (ie, less than 6 weeks of gestation) and worsens when bleeding is heavy or extends into the second trimester .

- *There are no effective interventions and in particular, bed rest is unnecessary and will not improve outcome.*

Approach to the evaluation of bleeding in early pregnancy (<20 weeks of gestation)



When evaluating early pregnancy bleeding, it is important to also consider the possibility of heterotopic pregnancy and the loss of one gestation from a multiple gestation.

hCG: human chorionic gonadotropin.

* An ectopic pregnancy can be excluded using a combination of serial human hCG levels and ultrasound examinations.

- **SECOND- AND THIRD-TRIMESTER BLEEDING**

Vaginal bleeding is less common in the second trimester and third trimester .The major causes of bleeding at these times are:

- Bloody show
- Pregnancy loss
- Placenta previa
- Placental abruption
- Uterine rupture (rare)
- Vasa previa (rare)

- Cervical, vaginal, or uterine pathology (eg, polyps, inflammation/infection, trophoblastic disease) and nontubal ectopic pregnancy are other etiologies.

Prior to 20 weeks of gestation

- **Evaluation** — The evaluation of pregnant patients with vaginal bleeding prior to 20 weeks is similar to that in the first trimester ,however, ectopic pregnancy is less of a concern because over 95 percent of ectopic pregnancies occur in the fallopian tube and virtually all tubal ectopic pregnancies will have been diagnosed by this time.
- The first step in the evaluation is to determine the extent of bleeding and whether bleeding is accompanied by pain. The presence of only light, intermittent, painless bleeding suggests bloody show from cervical insufficiency, a small marginal placental separation, or a cervical or vaginal lesion (eg, polyp, infection, cancer). Heavier bleeding, particularly when associated with pain, is more consistent with impending pregnancy loss or a larger placental separation (ie, abruption).

• Transvaginal ultrasonography is the cornerstone in the evaluation of bleeding in the second trimester. The primary goals are to determine whether the placenta is covering the cervical os (placenta previa), whether there is evidence of decidual hemorrhage causing placental separation (ie, placental abruption), and whether the cervix shows signs suggestive of cervical insufficiency (short length, dilated internal os, prolapsed fetal membranes).

Differential diagnosis

- **Early pregnancy loss**

- **Cervical insufficiency** — Symptoms include one or more of the following: vaginal fullness or pressure; vaginal spotting or bleeding; an increased volume of watery, mucus or brown vaginal discharge; and vague discomfort in the lower abdomen or back. In asymptomatic patients, the sonographic finding of a short cervix (≤25 mm before 24 weeks) in a patient with a previous preterm birth supports the diagnosis

- **Cervical, vaginal, or uterine pathology**

- **Ectopic pregnancy** — Ectopic pregnancy is rare at this gestational age. When an abnormal pregnancy is diagnosed after the first trimester, the location is likely to be nontubal (abdominal, cervical, cesarean scar, or cornual [interstitial]) or heterotopic (ie, coexistent intrauterine and extrauterine pregnancies).

Bleeding after 20 weeks of gestation

- The term antepartum bleeding typically refers to vaginal bleeding after 20 weeks of gestation that is unrelated to labor and delivery. Antepartum bleeding complicates 4 to 5 percent of pregnancies. The major causes are:
  - Placenta previa (20 percent)
  - Placental abruption (30 percent)
  - Uterine rupture (rare)
  - Vasa previa (rare)
- In the remaining cases, the exact etiology of the antepartum bleeding cannot be determined and is frequently attributed to marginal separation of the placenta.

• **Evaluation** — In contrast to bleeding in the first half of pregnancy, digital examination of the cervix **should be avoided** in patients presenting with bleeding in the second half of pregnancy until placenta previa has been excluded by ultrasound examination. *Digital examination of a placenta previa can cause immediate, severe hemorrhage.*

• Hemoglobin/hematocrit and coagulation studies should be obtained in all patients who are hemodynamically unstable .

Differential diagnosis

• **Bloody show** — "Bloody show" is the term used to describe the small amount of blood with mucus discharge that may precede the onset of labor by as much as 72 hours.

• **Placenta previa** — Placenta previa should be suspected in any patient who presents with vaginal bleeding in the second half of pregnancy. Classically, the absence of abdominal pain and uterine contractions was considered the clinical feature that distinguished between placenta previa and abruption, which is the other major cause of vaginal bleeding at this time. However, some patients with placenta previa have uterine contractions in addition to bleeding; thus, the diagnosis of placenta previa must be determined by sonographic examination.

Risk factors

- ✓ Previous placenta previa
- ✓ Previous cesarean
- ✓ Multiple gestation
- ✓ Previous uterine surgical procedure
- ✓ Increasing parity
- ✓ Increasing maternal age
- ✓ Infertility treatment
- ✓ Previous pregnancy termination
- ✓ Maternal smoking
- ✓ Maternal cocaine use
- ✓ Male fetus
- ✓ Prior uterine artery embolization

- **Placental abruption**

- The most common risk factors include:

✓ prior abruption
✓ trauma
✓ smoking
✓ cocaine use
✓ hypertension
✓ preterm rupture of membranes

- Symptoms:

- vaginal bleeding (80 percent)
- uterine tenderness (70 percent)
- uterine contractions (35 percent)
- with or without abnormalities of the fetal heart rate pattern

Ultrasound may show placental separation, but this is uncommon (only 2 percent of abruptions can be visualized on ultrasound); the major purpose of ultrasound examination is to exclude placenta previa. Abruption may be mild to severe (life-threatening to mother or fetus) and may be acute or chronic.

- **Cervical, vaginal, or uterine pathology**
- **Uterine rupture** — Uterine rupture is a rare cause of vaginal bleeding. In patients with vaginal bleeding and a previous cesarean birth or transmyometrial surgery, the possibility of uterine rupture should always be considered. It usually occurs during labor or as a result of abdominal trauma, but can rarely occur without an obvious precipitating cause. Abdominal pain, fetal heart rate abnormalities, and maternal hemodynamic instability due to intra-abdominal bleeding are likely and indicate an obstetric emergency.

- **Vasa previa** — In vasa previa, fetal blood vessels are present in the membranes covering the internal cervical os. The membranous vessels may be associated with a velamentous umbilical cord or they may connect the lobes of a bilobed placenta or the placenta and a succenturiate lobe. Rupture of the vasa previa is an obstetric emergency and may lead to fetal death from exsanguination.

- **Prognosis** — As with first-trimester bleeding, episodes of second- and third-trimester bleeding are also associated with adverse pregnancy outcome, primarily preterm birth. The risk of adverse outcome appears to depend on the degree of bleeding (worse outcome with heavier bleeding) and the cause (worse outcome with bleeding from non-previa source) .

- **Management** — The management of pregnant patients with vaginal bleeding in the second and third trimesters depends on the numerous factors:

- the gestational age
- the cause of bleeding
- the severity of bleeding
- fetal status

Management is discussed in the individual topic reviews on the specific causes of vaginal bleeding.

At the 32-week follow-up ultrasound,

- If the placental edge is ≥2 cm from the internal os, the placental location is reportedas normal and follow-up ultrasound for placental location is not indicated.
- If the placental edge is still <2 cm from the internal os (low-lying) or covering the cervical os (previa), follow-up transvaginal ultrasound is performed at 36 weeks.

We advise women with placenta previa to avoid vaginal intercourse and exercise after 20 weeks of gestation (earlier if they have experienced vaginal bleeding), and to decrease overall physical activity in the third trimester .

- Women should also be advised to seek immediate medical attention if contractions or vaginal bleeding occur, given the potential for severe bleeding and need for emergency cesarean delivery.

▶ It is unclear whether asymptomatic women benefit from hospitalization prior to delivery.

▶ Findings from observational studies suggest that women with placenta previa who have not experienced any antepartum bleeding are at low risk of needing an emergency cesarean delivery

- **Indications for delivery in placenta previa**
  - Cesarean delivery is indicated if any of the following occur:

● A non reassuring fetal heart rate tracing unresponsive to resuscitative measures.
● Life-threatening maternal hemorrhage refractory to standard interventions (transfusion, tocolysis, rest)

● Significant vaginal bleeding after 34 weeks of gestation

PLACENTAL ABRUPTION

- Initiate continuous fetal heart rate monitoring

▶ Secure intravenous access. Place one wide-bore intravenous line; two if the patient presents with signs of moderate or severe abruption

▶ Closely monitor the mother's hemodynamic status (heart rate, blood pressure, urine output, blood loss)

- Draw blood for a complete blood count including platelet count, blood type and screen (cross-match if transfusion is likely), and coagulation studies (fibrinogen concentration, prothrombin time, activated partial thromboplastin time).
  - A baseline complete metabolic panel, including creatinine, is prudent, since women with severe abruption often develop renal dysfunction. In addition, check liver function tests in women with preeclampsia or HELLP syndrome (ie, Hemolysis, Elevated Liver enzymes, Low Platelet count).
  - Urine toxicology is appropriate if substance abuse is suspected.

- Transfusion goals are:
  - Maintain hematocrit at 25 to 30 percent or greater
  - Maintain platelet count ≥75,000/microL
  - Maintain fibrinogen ≥100 mg/dL.
  - Maintain a prothrombin and partial thromboplastin time less than 1.5 times control

- **Dead fetus**
  - — The optimal route of delivery in these cases minimizes the risk of maternal morbidity or mortality, since fetal well-being is no longer a factor.
  - Blood and blood product replacement is often necessary and expeditious delivery is desirable because the frequency of coagulopathy and continuous heavy bleeding is much higher in abruptions in which fetal death has occurred.

- **Unstable mother:**
  Cesarean delivery is often the best option when vaginal delivery is not imminent and rapid control of bleeding is required because of maternal hemodynamic instability or significant coagulopathy

- **Stable mother :**

Vaginal delivery is preferable. These patients are often contracting vigorously, so amniotomy may be all that is required to expedite delivery.

Oxytocin is administered, if needed to induce or augment labor.

- **Nonreassuring fetal status**
  - **Category III tracing** – Expeditious delivery is indicated if the fetal heart rate pattern suggests an increased risk of fetal acidemia (ie, category III tracing).

  A biophysical profile score of 0 to 4 also suggests an increased risk of fetal acidemia and the need for expeditious delivery

- **Reassuring fetal status :**
  If the fetal heart rate pattern (category I tracing) or biophysical profile score is reassuring, then the decision to deliver versus expectant management depends on both maternal hemodynamic status and gestational age.

- **Less than 34 weeks of gestation —** — When the fetus and mother are both stable and there is no evidence of ongoing major blood loss or coagulopathy, conservative management with the aim of delivering a more mature fetus is the main goal before 34 weeks of gestation .We take the following approach:

- **Administer corticosteroids** – Corticosteroids to promote fetal lung maturation and reduce complications of prematurity are administered to pregnancies at 23 to 34 weeks of gestation, given the increased risk of need for preterm delivery.

- **Tocolysis** – For women in preterm labor, we administer a 48-hour course of nifedipine to enable administration of a full course of corticosteroids.

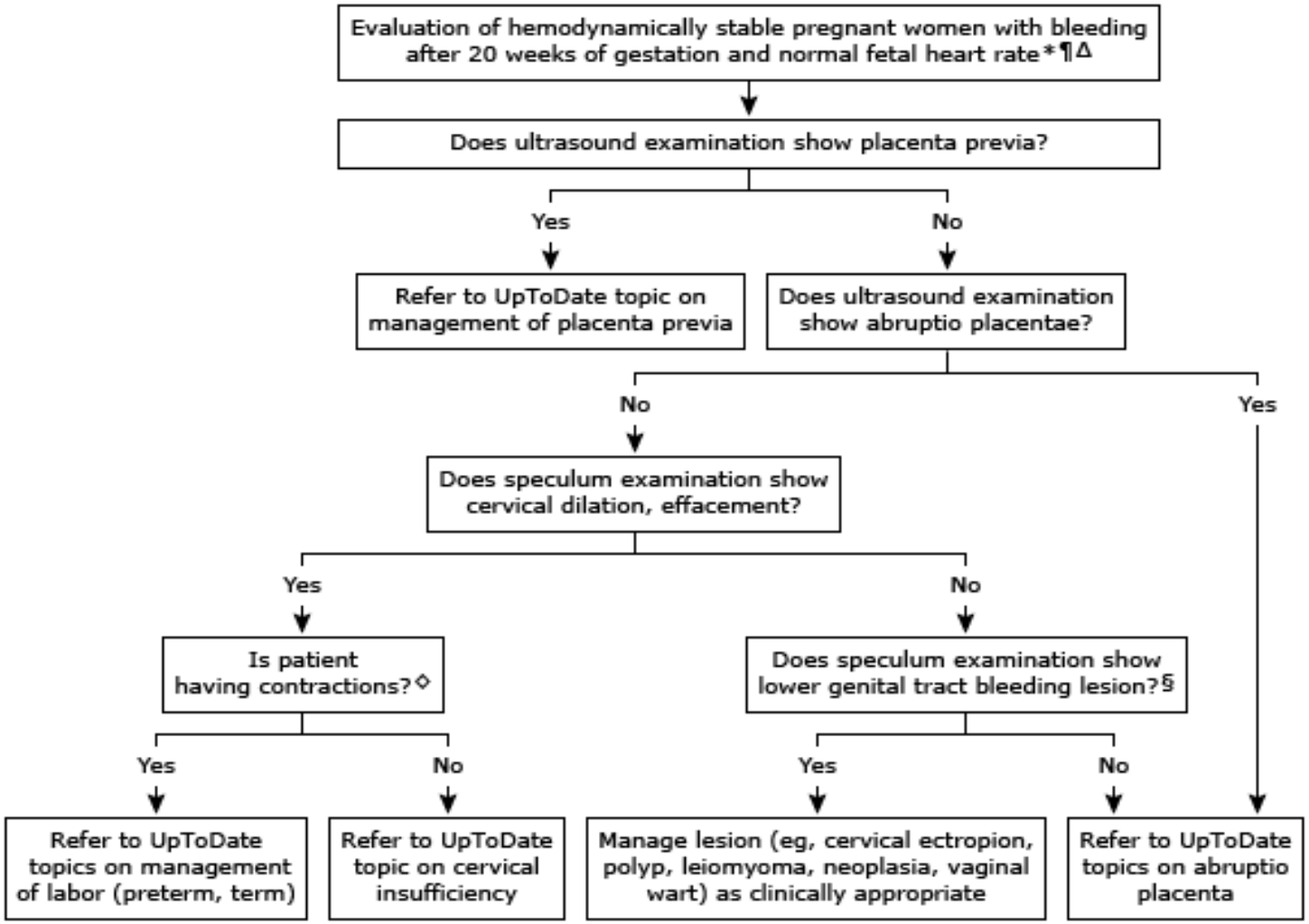
- **Antenatal fetal assessment** – We perform fetal assessment with a nonstress test or biophysical profile at least weekly.

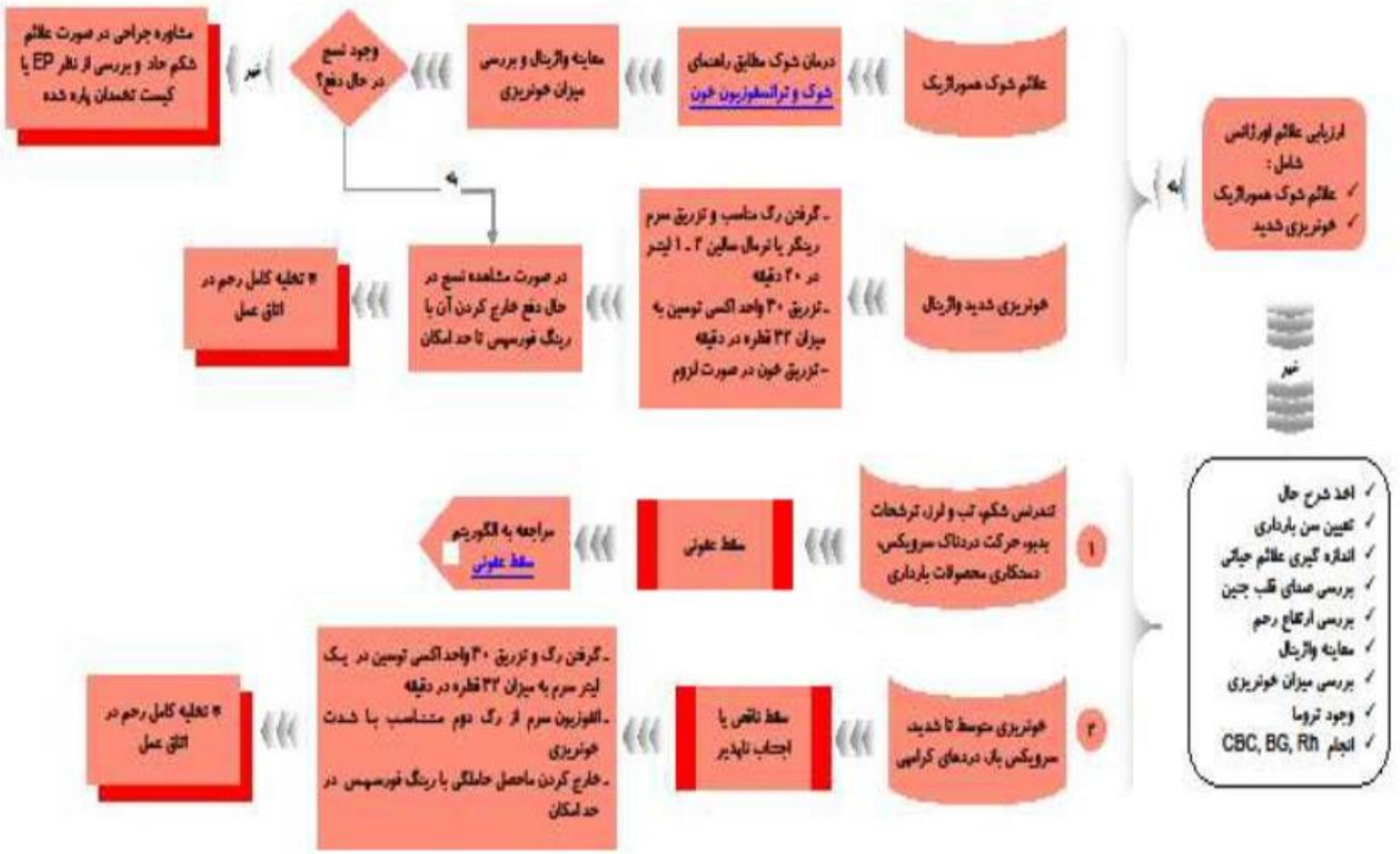
▶ We also perform serial sonographic estimation of fetal weight to assess growth since these fetuses are at risk of developing growth restrictionover time

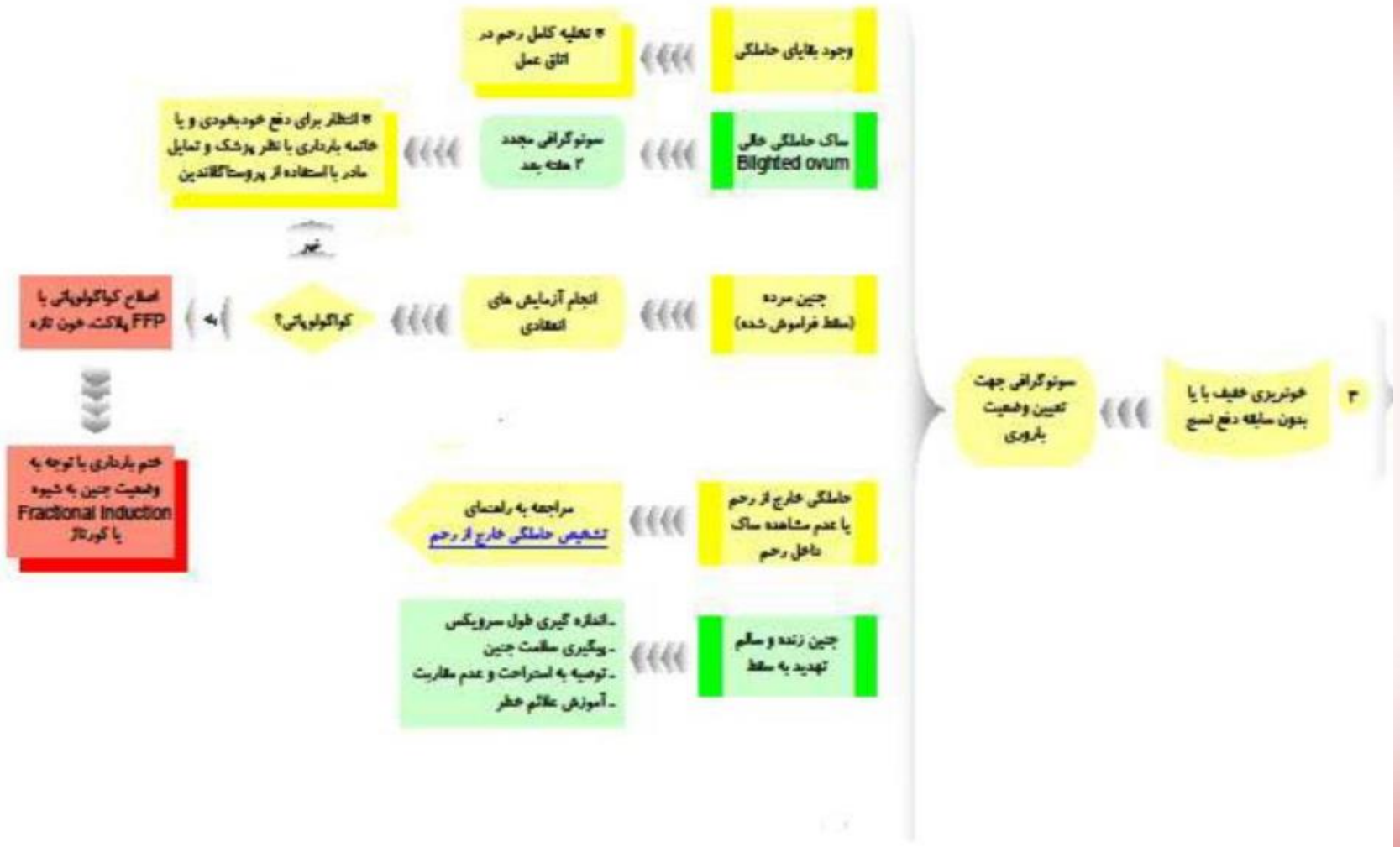
- For patients managed conservatively and without any further symptoms,we schedule delivery at 37 to 38 weeks because of the increased risk ofstillbirth

◆ ► **34 to 36 weeks of gestation —** We deliver most patients with acute abruption at 34 to 36 weeks of gestation, since these patients remain at risk of maternal or fetal compromise from progressive or recurrent placental separation and neonatal morbidity is relatively low at this gestational age.

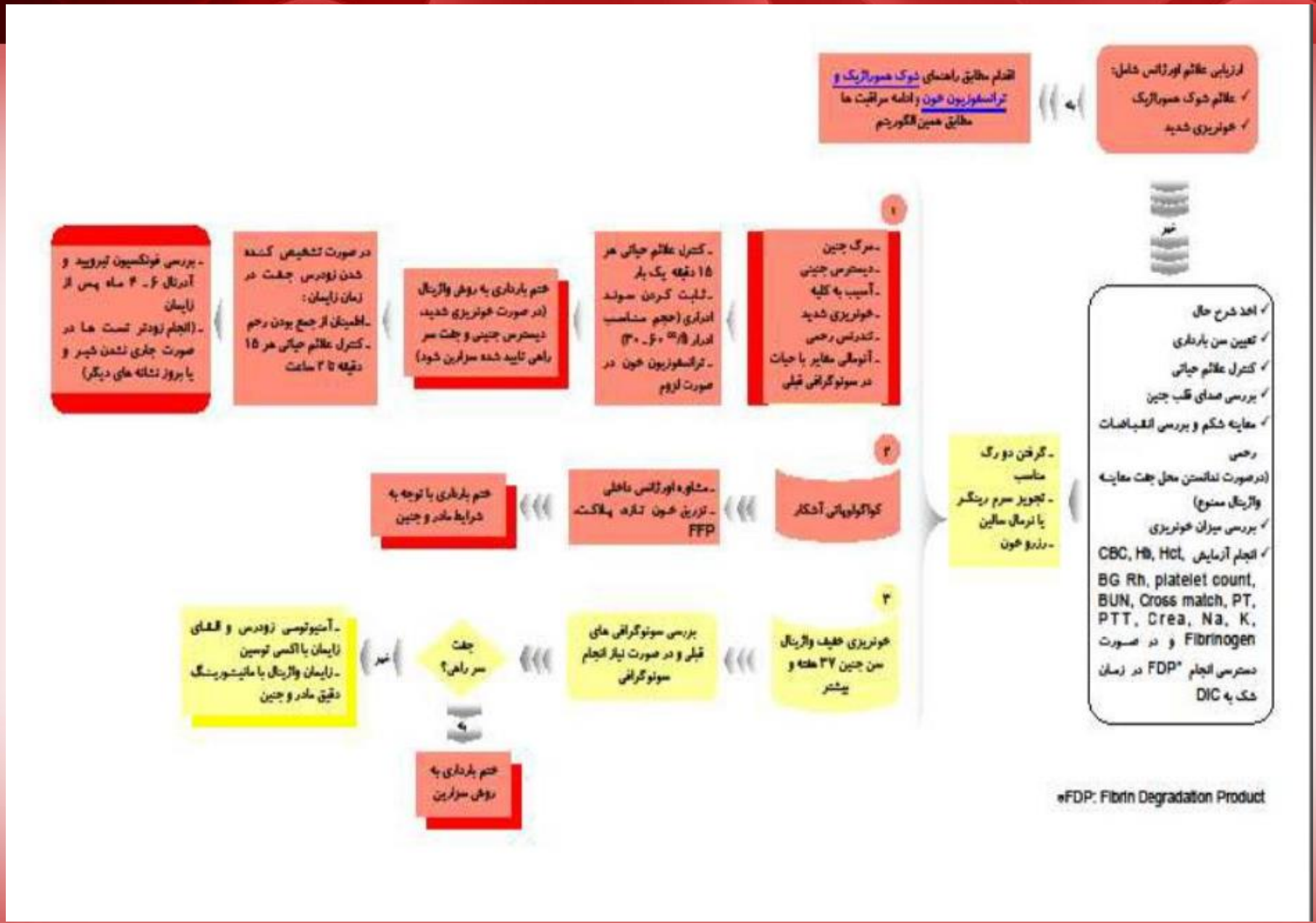
Evaluation of late pregnancy bleeding




ارزیابی علائم اورژانس شامل :
علائم شوک هموراژیک
خونریزی شدید
به
علائم شوک هموراژیک
درمان شوک مطابق راهنمای شوک و ترانسفوزیون خون
معاینه واژینال و بررسی میزان خونریزی
وجود نسج در حال دفع؟
خیر
مشاوره جراحی در صورت علائم شکم حاد و بررسی از نظر EP یا کیست تخمدان پاره شده
بله
خونریزی شدید واژینال
- گرفتن رگ مناسب و تزریق سرم رینگر یا نرمال سالین ۲ - ۱ لیتر در ۲۰ دقیقه
- تزریق ۳۰ واحد اکسی توسین به میزان ۳۲ قطره در دقیقه
- تزریق خون در صورت لزوم
در صورت مشاهده نسج در حال دفع خارج کردن آن با رینگ فورسپس تا حد امکان
* تخلیه کامل رحم در اتاق عمل
غیر
۱
تشدید شکم، تب و لرز، ترشحات بدبو، حرکت دردناک سرویکس، دستکاری محصولات بارداری
سقط عفونی
مراجعه به الگوریتم سقط عفونی
۳
خونریزی متوسط تا شدید سرویکس یا دردهای کرامپی
سقط ناقص یا اجتناب ناپذیر
- گرفتن رگ و تزریق ۴۰ واحد اکسی توسین در یک لیتر سرم به میزان ۳۲ قطره در دقیقه
- انفوزیون سرم از رگ دوم متناسب با شدت خونریزی
- خارج کردن ماحصل حاملگی با رینگ فورسپس در حد امکان
* تخلیه کامل رحم در اتاق عمل
✓ اخذ شرح حال
✓ تعیین سن بارداری
✓ اندازه گیری علائم حیاتی
✓ بررسی صدای قلب جنین
✓ بررسی ارتفاع رحم
✓ معاینه واژینال
✓ بررسی میزان خونریزی
✓ وجود تروما
✓ انجام CBC, BG, Rh


۳
خونریزی خفیف یا یا بدون سابقه دفع نسج
سونوگرافی جهت تعیین وضعیت باروری
جنین مرده (سقط فراموش شده)
ساک حاملگی خالی Blighted ovum
وجود بقایای حاملگی
انجام آزمایش های انعقادی
سونوگرافی مجدد ۲ هفته بعد
* تخلیه کامل رحم در اتاق عمل
* انتظار برای دفع خودبخودی و یا خاتمه بارداری با نظر پزشک و تمایل مادر با استفاده از پروستاگلاندین
غیر
کوآگولوپاتی؟
به
اصلاح کوآگولوپاتی با FFP پلاکت، خون تازه
ختم بارداری با توجه به وضعیت جنین به شیوه Fractional Induction یا کورتاژ
حاملگی خارج از رحم یا عدم مشاهده ساک داخل رحم
مراجعه به راهنمای تشخیص حاملگی خارج از رحم
جنین زنده و سالم تهدید به سقط
- اندازه گیری طول سرویکس
- پیگیری سلامت جنین
- توصیه به استراحت و عدم مقاربت
- آموزش علائم خطر

نوع اقدام		شرح اقدام
اخذ شرح حال و سابقه		تعیین سن بارداری، زمان شروع و میزان خونریزی، سابقه دفع نسج، دستکاری محصولات بارداری، دردهای کرامپی
معاینه		ارزیابی علائم حیاتی (تب و لرز)، معاینه واژینال (دفع نسج یا وزیکول، میزان خونریزی، باز یا بسته بودن سرویکس، حرکت دردناک سرویکس، ترشحات بدبو) و معاینه شکم (تندرنس شکم)
اندیکاسیون بستری		علائم شوک هموراژیک، خونریزی شدید، سقط ناقص یا اجتناب ناپذیر، سقط عفونی، مول، وجود بقایای بارداری و یا EP
پاراکلینیک	آزمایشگاه	Hb, HCT, BG, Rh, Cross match، تست های انعقادی و اندازه گیری پلاکت و فیبرینوژن
	تصویر برداری	سونوگرافی
	سایر تست های تشخیصی	
درمان دارویی	نوع دارو یا نحوه دوز	Oxytocin ۳۰ واحد در لیتر (در سقط ناقص و اجتناب ناپذیر) در سه ماهه اول بارداری: میزوپروستول ۸۰۰ میکرو گرم واژینال (قرص های ۲۰۰ میکرو گرمی) هر ۲٤ ساعت تا ۳ دوز در هفته های ۲٤-۱٤ بارداری: میزوپروستول ٤۰۰ -۱۰۰ میکرو گرم واژینال هر ۱۲-٦ ساعت تا ٦ دوز (کنتراندیکاسیون های میزوپروستول همانند کنتراندیکاسیون های اکسی توسین است.) سرم کریستالوئید و در صورت لزوم خون
	اندیکاسیون	PG ها در Missed Abortion: (Oxytocin در سقط ناقص و اجتناب ناپذیر)
درمان جراحی	اندیکاسیون	خونریزی شدید، شکم حاد، سقط ناقص یا اجتناب ناپذیر، جنین مرده
	نوع عمل	تخلیه کامل رحم (کورتاژ)، لاپاراتومی
درمان غیر دارویی و آموزش ها		استراحت، عدم انجام مقاربت و آموزش علائم خطر (تشدید خونریزی و یا دردهای کولیکی یا دفع نسج) توصیه به تزریق آمپول رگام
اندیکاسیون ختم بارداری		خونریزی شدید، شکم حاد، سقط ناقص یا اجتناب ناپذیر، جنین مرده، ساک خالی حاملگی، وجود بقایای حاملگی
مدت بستری		بسته به شرایط بیمار و نظر پزشک
اندیکاسیون ترخیص		پس از توقف خونریزی و پاک شدن رحم از محصولات حاملگی و Stable شدن شرایط بیمار
دستورات Follow up		پیگیری سلامت جنین، اندازه گیری سرویکس در موارد تهدید به سقط، بررسی آنمی در موارد خونریزی شدید یا شوک
سایر اقدامات		


ارزیابی علائم اورژانس شامل:
✓ علائم شوک هموراژیک
✓ خونریزی شدید
اقدام مطابق راهنمای شوک هموراژیک و ترانسفوزیون خون و ادامه مراقبت ها مطابق همین الگوریتم
خیر
✓ اخذ شرح حال
✓ تعیین سن بارداری
✓ کنترل علائم حیاتی
✓ بررسی صدای قلب جنین
✓ معاینه شکم و بررسی انقباضات رحمی
(درصورت ندانستن محل جفت معاینه واژینال ممنوع)
✓ بررسی میزان خونریزی
✓ انجام آزمایش CBC, Hb, Hct, BG Rh, platelet count, BUN, Cross match, PT, PTT, Crea, Na, K, Fibrinogen و در صورت دسترسی انجام FDP* در زمان شک به DIC
- گرفتن دو رگ مناسب
- تجویز سرم رینگر یا نرمال سالین
- رزرو خون
۱
- مرگ جنین
- دیسترس جنینی
- آسیب به کلیه
- خونریزی شدید
- تندرس رحمی
- آنومالی معایر با حیات در سونوگرافی قبلی
- کنترل علائم حیاتی هر ۱۵ دقیقه یک بار
- ثابت کردن سوند ادراری (حجم مناسب ادرار ۵۰-۶۰ cc/h ۳۰)
- ترانسفوزیون خون در صورت لزوم
ختم بارداری به روش واژینال (در صورت خونریزی شدید، دیسترس جنینی و جفت سر راهی تایید شده سزارین شود)
در صورت تشخیص کشنده شدن زودرس جفت در زمان زایمان:
- اطمینان از جمع بودن رحم
- کنترل علائم حیاتی هر ۱۵ دقیقه تا ۲ ساعت
- بررسی فونکسیون تیرویید و آدرنال ۶-۴ ماه پس از زایمان
- (انجام زودتر تست ها در صورت جاری نشدن شیر و یا بروز نشانه های دیگر)
۲
کواگولوپاتی آشکار
- مشاوره اورژانس داخلی
- تزریق خون تازه منجمد FFP
ختم بارداری با توجه به شرایط مادر و جنین
۳
خونریزی خفیف واژینال سن جنین ۳۷ هفته و بیشتر
بررسی سونوگرافی های قبلی و در صورت نیاز انجام سونوگرافی
جفت سر راهی؟
خیر
- آمنیوتومی زودرس و القای زایمان با اکسی توسین
- زایمان واژینال با مانیتورینگ دقیق مادر و جنین
بله
ختم بارداری به روش سزارین
*FDP: Fibrin Degradation Product

توضیحات

- علل خونریزی نیمه دوم در ۵۰٪ موارد دکلمان یا جفت سرراهی است و ۵۰٪ دیگر علتی مانند ضایعات دستگاه تناسلی، پارگی رحم، وازوپروید چسبندگی غیرطبیعی جفت و یا علل ناشناخته است.
- جهت تخمین میزان خونریزی (خفیف، متوسط و شدید) به راهنمای شوک هموراژیک و ترانسفوزیون خون مراجعه شود.
- معاینه با اسپکولوم می تواند مانند معاینه با انگشت تروماتیک باشد بخصوص اگر جفت در پشت فورنیکس قدامی باشد. بنابراین بهتر است پس از سونوگرافی و رد جفت پرویا معاینه انجام شود ولی در صورت وجود انقباضات رحمی و عدم دسترسی به سونوگرافی، اسپکولوم با احتیاط گذاشته شود.
- امروزه با دسترسی به دستگاه های سونوگرافی با رزولوشن بالا در مراکز درمانی، به double set up کمتر نیاز می شود. درصورت عدم دسترسی به سونوگرافی، پس از آمادگی جهت ختم بارداری double set up انجام شود.
- در صورت وجود انقباضات رحمی در زیر هفته ۳۴ بارداری، توکولیز با دقت فراوان تحت نظر پزشک و با توجه به وضعیت مادر و جنین امکان پذیر است.
- درصورتیکه مادر خطرات را به خوبی بشناسد و اهمیت محدودیت فعالیت درمنزل را درک کند و انگیزه بالا در جهت حفظ جنین داشته باشد. حداقل ۳ روز پس از قطع خونریزی می تواند بیمارستان را ترک نماید.
- در مورد سابقه جراحی روی رحم و وجود جفت سر راهی، چسبندگی های غیر طبیعی جفت باید مد نظر قرار گیرد.

نوع اقدام		شرح اقدام
اخذ شرح حال و سابقه		زمان شروع و میزان خونریزی، سابقه جراحی، وجود جنین آنومال، دقت در سونوگرافی انجام شده در خصوص محل جفت
معاینه		ارزیابی علائم حیاتی (علائم شوک)، معاینه شکم (وجود انقباضات رحمی، تندرنس شکم)، صدای قلب جنین، میزان خونریزی، برر- ضایعات سرویکس پس از رد جفت سرراهی
اندیکاسیون بستری		علائم شوک هموراژیک، خونریزی شدید، دیسترس جنینی، مرگ جنین، آسیب به کلیه، تندرنس رحمی، آنومالی های مغایر با حیـ کوآگولوپاتی آشکار، جفت سرراهی، کنده شدن زودرس جفت
پاراکلینیک	آزمایشگاه	Hb, HCT, BG, Rh, Cross match ,BUN, Cr, Na, K تست های انعقادی و اندازه گیری پلاکت و فیبرینوژن و در صو- دسترسی FDP در زمان شک به DIC
	تصویر برداری	سونوگرافی
	سایر تست های تشخیصی	NST, BPS، مانیتورینگ مادر و جنین
درمان دارویی	نوع دارو یا نکر دوز	آمپول روگام، آمپول استرویید، توکولیتیک (استفاده از توکولیتیک مورد بحث است) سرم کریستالوئید و در صورت لزوم خون
	اندیکاسیون	شوک هموراژیک، توقف درد های زایمانی، جفت سرراهی
درمان جراحی	اندیکاسیون	خونریزی شدید، دیسترس جنینی، مرگ جنین، آنومالی های مغایر با حیات، کوآگولوپاتی آشکار، جفت سرراهی
	نوع عمل	سزارین
درمان غیر دارویی و آموزش ها		استراحت، عدم انجام مقاربت و آموزش علائم خطر (تشدید خونریزی) توصیه به تزریق آمپول رگام در جفت سرراهی، دکلمان
اندیکاسیون ختم بارداری		خونریزی شدید، دیسترس جنینی، مرگ جنین، آسیب به کلیه، کوآگولوپاتی آشکار، جفت سرراهی یا کنده شدن زودرس جفت (در مورد آخر بستگی به میزان خونریزی و سن حاملگی دارد)
مدت بستری		بسته به شرایط بیمار و نظر پزشک
اندیکاسیون ترخیص		حداقل ۳ روز پس از قطع خونریزی و Stable شدن شرایط بیمار در موارد جفت سرراهی
دستورات Follow up		-بررسی مهاجرت جفتی از طریق سونوگرافی سریال بعد از ۲۴ هفته -بررسی فونکسیون تیرویید و آدرنال ٤ تا ٦ ماه پس از زایمان بعد از خونریزی های شدید
سایر اقدامات		مشاوره با متخصص داخلی (ترجیحاً همانولوژیست) در صورت خونریزی شدید


UpToDate
vaginal bleeding in pregnancy
Contents
Calculators
Drug Interactions
UpToDate Pathways
Back
Overview of the etiology and evaluation of vaginal bleeding in pregnancy
Authors: Errol R Norwitz, MD, PhD, MBA, Joong Shin Park, MD, PhD
Section Editor: Charles J Lockwood, MD, MHCM
Deputy Editor: Vanessa A Barss, MD, FACOG
Contributor Disclosures
All topics are updated as new evidence becomes available and our peer review process is complete.
Literature review current through: Sep 2021. | This topic last updated: Jul 29, 2021.

با سپاس از توجه شما