

by Gideon C. Panter, M.D.

The site of implantation: It is believed that bleeding occurs as the placental villi invade the lining of the uterus to obtain contact with the maternal blood vessels.

The phone call that reports bleeding in early pregnancy is always poignant. Christine N. called me at 8:30 one night. Her voice was filled with urgency and worry as she said, "I'm so frightened! Tom and I had just sat down in the theatre when I felt something wet in my pants. When I got to the ladies room I saw that my panties were stained red – I've been bleeding. What should I do? Am I having a miscarriage?"

I had examined Christine one week before. She was eager to find out if she and Tom were going to have a baby. Her period was two weeks late then. I was happy to give her the good news; she was six weeks pregnant. Now, at seven weeks, she was very frightened - she felt the threat that her pregnancy was in danger or that it might be imperfect. Probably no cause for alarm. At least 40 percent of women who become pregnant may bleed or show some bloody staining in early pregnancy. Most of these pregnancies will continue and will be normal. Statistically, it is far more likely that bleeding in early pregnancy is not a threat to the pregnancy - that the bleeding is incidental and that it will soon pass.

I told Christine that it was most likely that her bleeding was not an ominous sign but rather the innocuous result of placental implantation in the uterine lining. I explained that the bleeding showed that she needed observation. I told her to rest in bed and abstain from intercourse. I asked her to report any heavier bleeding or cramping to me and I would examine her in the morning. By definition, any bleeding in the first trimester of pregnancy is called a threatened abortion until one of the following diagnoses can be made:

- Implantation bleeding - probably the majority of all bleeding.
- Miscarriage - referred to medically as spontaneous abortion - occurring in about 15 percent of pregnancies.
- Cervical and vaginal infections and polyps and erosions - all of which will bleed if irritated by intercourse.
- Ectopic pregnancy - the rarest; one of out 200 pregnancies.

The pelvic examination for bleeding in the first trimester of pregnancy is essential for making the diagnosis. This is perfectly safe and does not harm the fetus. Sometimes, by coincidence, a miscarriage that was destined to occur anyway will happen after the examination. But the examination does not cause the miscarriage.

Infections and Polyps: The pelvic examination would show whether the bleeding originated in the uterus itself, the cervix or the vagina. If a vaginal or cervical infection were present, we would institute treatment to soothe the swollen tissues and stop the bleeding. A cervical polyp is usually a benign growth and needs no treatment. It will usually stop bleeding when the irritation clears up, and it frequently gets pulled off the cervix during the delivery.

Ectopic Pregnancy: The rarest cause (of bleeding in early pregnancy). When conception occurs outside of the uterus (usually within one of the Fallopian tubes), it is called an ectopic pregnancy. Because it is an abnormal pregnancy, the lining of the uterus is not properly maintained. The lining sheds a bit, and this causes a great deal of pain in the affected tube and because of internal bleeding from the tube, fainting is common. Pelvic examination shows a growing enlargement in the tube that holds the pregnancy. (This can also be shown with sonography.) Since there is a great danger of internal bleeding, an ectopic pregnancy In the morning, Christine reported, "It's just some brown staining now." She was having no pain or cramps. Her pelvic examination showed no infection or polyps. There was a slight maroon staining coming from the cervical opening. The cervix was tightly closed — no dilation was taking place. Arid there was no mass in the region of either Fallopian tube.

Normal implantation Bleeding: Statistically, and by the turn of events, it was most likely that this bleeding represented the phase of active placental implantation. As the placenta forms and expands, finger-like projections, called villi, develop. These placental villi invade the lining of the mother's uterus to establish contact with the mother's blood vessels. This is the normal system, which must develop so that nutrients will be able to pass from the mother's circulation to the tiny blood vessels in the villi. From here the blood flows to the fetus via the umbilical cord. As the villi invade the uterine lining, they may cause a break or rupture in a tiny blood vessel of the uterus. Blood may then seep out for a while, until natural healing takes place. But when the implantation bleeding occurs, neither the doctor nor the pregnant woman call tell whether the pregnancy will be healthy or whether it will soon abort. With the passage of time, one can see if the bleeding stops, as it should with implantation bleeding, or whether the bleeding progresses and the telltale cramps of miscarriage appear.

Abnormal Pregnancies: destined to miscarry. In 1943, A.T. Mertig and W.H. Sheldon published their study of 1,000 spontaneous abortions. They showed that the embryo was degenerated or absent in 49 percent of the women with spontaneous abortions. Three percent had embryos

with localized abnormalities, and in 10 percent the placenta was abnormal. In other words, 62 percent of the spontaneous abortions studied showed abnormalities that made a successful outcome impossible. The term “blighted ovum” was used to describe these abnormal pregnancies (although I much prefer the terms “blighted gestation” and “blighted pregnancy” since something could just as well have been wrong with the sperm cell to produce the poor conceptus). Moreover, using modern techniques of chromosomal analysis, some studies have shown that more than 50 percent of all spontaneous abortions are associated with chromosomal abnormalities. There seems to be some mechanism in the pregnant woman that senses the blighted gestation and expels it.

The symptoms of spontaneous abortion: If a spontaneous abortion is taking place, the bleeding will tend to be heavy - like a menstrual period. There usually will be cramping due to the contractions of the uterus, which is trying to empty itself. The pelvic examination will show that the cervix is dilated. There might be tissue, either from the placenta or from the defective fetus, passing through the cervix. Because there is always the possibility that bleeding from the uterus is a sign of an impending miscarriage, I ask my patients to rest in bed and abstain from intercourse during those insecure first 24 hours so that if a miscarriage occurs, the patient will be rested and comfortable.

One week later, I reexamined Christine to be sure that the uterus was growing properly. The cervix was tightly closed. There was no further bleeding. The mews was now larger, an eight-week size. We were all relieved that we could resume our optimistic outlook for the future.