ACOG Issues New Guidelines on Managing Stillbirths

Washington, DC – Approximately 1 out of every 160 deliveries in the US ends in stillbirth—a devastating experience for women and their families—yet its causes remain poorly understood. In an effort to help prevent stillbirths by improving the understanding of its risk factors and causes, The American College of Obstetricians and Gynecologists (ACOG) today issued a new Practice Bulletin for ob-gyns on the clinical management of stillbirths. The guidelines, published in the March issue of Obstetrics & Gynecology, review what is known about stillbirth and highlight the importance of uniform data collection.

Stillbirth, one of the most common negative pregnancy outcomes, is a fetal death that occurs during pregnancy at 20 weeks’ or greater gestation. Fetal losses before 20 weeks are defined as miscarriages. Approximately 25,000 stillbirths are reported every year and represents 60% of all perinatal mortality in the US. In 2004, the overall stillbirth rate in the US was 6.2 per 1,000 births, a slight decrease from 6.4 per 1,000 in 2002. Since 1990, the rate of early stillbirth (20-27 weeks) has remained stable at approximately 3.2 per 1,000 births, while the rate of late stillbirth (28 weeks or greater) has decreased from 4.3 to 3.1 per 1,000 births.

"These guidelines represent a notable consensus on how we should be dealing with stillbirth in this country," said Ruth C. Fretts, MD, of Harvard Vanguard Medical Associates and Harvard Medical School, who headed the development of ACOG's new Practice Bulletin. "But we have a long way to go before we have a clearer understanding of the causes of stillbirth."

Risk Factors

The most common risk factors associated with stillbirth are non-Hispanic black race, nulliparity (no previous births), advanced maternal age, and obesity. Black women have the highest stillbirth rate at 11.25 per 1,000 births compared with Hispanic, Asian, Native American, and white women, all of whom have rates of less than 6 per 1,000 births. Stillbirth rates remain high among black women, even among those who receive adequate prenatal care. This disparity has been attributed to higher rates of diabetes, hypertension, placental abruption, and premature rupture of membranes among black women.

Hypertension and diabetes, both risk factors for stillbirth, are two of the most common medical conditions that occur along with pregnancy. Research indicates that women who have diabetes prior to pregnancy have a two- to five-fold increased risk of stillbirth. Obesity is associated with an increased risk of both miscarriage and stillbirth. The risk of stillbirth is 8 per 1,000 births among obese pregnant women with a body mass index (BMI) between 30 and 39.9 and is even higher among pregnant women with a BMI greater than 40 (11 per 1,000). Obesity remains an independent risk factor for stillbirth even after controlling for smoking, gestational diabetes, and preeclampsia.

Multiple gestations also are related to higher stillbirth rates. A pregnancy with two or more fetuses has a stillborn rate four times higher than a singleton pregnancy. Advanced maternal age (older than 35) is yet another risk factor for stillbirth, even after taking into account other risk factors such as hypertension, diabetes, placenta previa, and multiple gestations. Older women having their first pregnancy appear to be at greater risk than older women who have given birth previously.

Causes

A significant portion of stillbirths remains unexplained despite a thorough evaluation, according to ACOG. The lack of uniform protocols for evaluating and classifying stillbirths in the US, coupled
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with decreasing autopsy rates, has hindered the study of specific causes. In most cases, fetal death certificates are filled out before a full investigation has been completed, and amended death certificates are rarely filed when additional information from the stillbirth evaluation surfaces. "It's worth noting that the US has the lowest stillbirth autopsy rate among developed countries," according to Dr. Fretts. "Part of the intent of these guidelines is to increase this rate by encouraging physicians to request, and families to agree to, an autopsy so that we can gain a better understanding of the causes of stillbirth."

Fetal growth restriction (FGR), when a fetus does not grow in size appropriately, is one known cause of stillbirth and is associated with certain genetic defects, fetal infections, maternal smoking, hypertension, autoimmune disease, obesity, and diabetes. Placental abruption, a condition in which the placenta tears away from the uterine wall, is another common cause of stillbirth. Cocaine and other illegal drug use, smoking, hypertension, and preeclampsia all significantly contribute to placental abruption.

Chromosomal and genetic abnormalities can be found in approximately 8% to 13% of stillborn fetuses. The most common identifiable abnormalities found among stillborns include Down syndrome, Turner syndrome, Edward's syndrome, and Patau syndrome. Infections such as parvovirus, cytomegalovirus, syphilis, and Listeria monocytogenes are all causally associated with stillbirth.

Although umbilical cord problems and abnormalities are frequently blamed for stillbirths, ACOG's guidelines state that other causes should be excluded before making this diagnosis because cord abnormalities are found in nearly one-third of all normal live births. A stillbirth attributed to a cord problem should have evidence of obstruction or circulatory compromise.

Management

After a stillbirth, sensitivity to the family's emotional state is important. Parents should be given the opportunity to hold their baby and perform cultural or religious activities, such as baptism. The issue of performing an autopsy is especially sensitive, but clinicians should emphasize that the results may be valuable in planning future pregnancies. Less invasive evaluation methods such as photographs, X-rays, ultrasound, magnetic resonance imaging, and samples of skin or blood of the stillborn may help identify a cause for parents who object to a full autopsy.

"Parents want answers when they have a stillbirth, so clinicians should not be afraid to request an autopsy. Without a thorough evaluation it will be difficult to counsel women on their risk of having another stillbirth," said Dr. Fretts.

A general examination of the stillborn fetus should be performed promptly after delivery. Examination of the placenta and the umbilical cord is an essential component of stillbirth evaluation. ACOG recommends that genetic testing be performed in all stillbirths after parental permission is obtained.

A thorough maternal history also should be taken, including obstetric history, exposures to medications and viruses, and family history. Maternal testing for such things as lupus, thyroid problems, and antibodies to human parvovirus, as well certain genetic conditions may provide information that could affect future pregnancies.

Counseling and Prevention

Counseling women on their risk of having another stillbirth may be quantifiable when specific risk factors are identified. In low-risk women with an unexplained stillbirth, the risk of recurrence after 20 weeks' gestation is estimated at 7.8 to 10.5 per 1,000 births with most of the risk occurring before 37 weeks' gestation. After 37 weeks, the risk of recurrence drops to 1.8 per 1,000. Women with a history of live birth complicated by FGR, however, have a much higher stillbirth rate of 21.8 per 1,000. Diabetes, hypertension, and a history of placental abruption also carry higher rates of recurrent fetal loss.

Although there is no sure-fire method to prevent stillbirths, losing weight, quitting smoking, and abstaining from drugs and alcohol are all lifestyle modifications that women can make before becoming pregnant. Women with diabetes should get their glucose levels under tight control before becoming pregnant and throughout pregnancy. Preconception and prenatal care can also help identify and screen women for other risk factors that may increase their stillbirth risk.

"In terms of preventing stillbirth, women should try to optimize their health prior to pregnancy. This includes getting enough folic acid before they become pregnant and getting both preconception and prenatal care," said Dr. Fretts. "We also need to educate women that delaying their first birth until after age 40 is associated with an increased risk of adverse outcomes, including an increased
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The American College of Obstetricians and Gynecologists is the national medical organization representing over 53,000 members who provide health care for women.