Consider Placental Discrepancy in Discordant Twins

BY SHERRY BOSCHERT
San Francisco Bureau

SAN FRANCISCO — Don’t assume the presence of twin-twin transfusion syndrome if you see discordant sizes and weights in a monochorionic twin pregnancy; consider unequal placental sharing and other potential causes, Dr. Vickie A. Feldstein said.

Sometimes called “selective intrauterine growth restriction,” unequal placental sharing occurs when twins who share one placenta don’t divide the placental resources equally so that one twin gets less circulation and nutrition.

“Twin’s in utero, like twins on the outside, don’t necessarily share well,” she said at a meeting on antepartum and intrapartum management sponsored by the University of California, San Francisco.

Monochorionic twins typically get followed closely (at least every 2 weeks) in the last two trimesters because of the risk for twin-twin transfusion syndrome, which affects 15% of monochorionic twins and causes fetal death in up to 70% of cases if untreated.

Every ultrasound report from serial surveillance of monochorionic twins should include an estimate of percent weight discordance, said Dr. Feldstein, professor of clinical radiology and obstetrics, gynecology, and reproductive sciences at the university. To calculate percent weight discordance, take the estimated weight of the larger twin subtract the estimated weight of the smaller twin, divide the sum by the weight of the larger twin, and multiply by 100.

If the discordance is “more than 15%, we’re a little bit atten- tive,” she said. Discordance of 20% or more is cause for concern.

A 20% discordance may stabilize, with the twins following their own growth charts and ending up healthy but slightly differ- ent sizes. “This is one of the rea- sons I never refer to these as identical twins,” she noted.

If the discordance continues to increase, however, look for the cord insertion sites by ultra- sound. With unequal placental sharing, typically the larger twin has a marginal cord insertion, and the smaller twin has a marginal cord insertion.

“If you do Dopplers of the cords of these twins, in general the twin with the better piece of placenta and central cord has normal umbilical artery Dopplers, and the smaller growth-restricted twin tends to have higher-resis- tance Dopplers from very early on,” Dr. Feldstein said.

If the smaller twin starts to fall off of its growth chart, early de- livery may be in order.

All monochorionic twins have connections between arteries, veins, or an artery in one twin and a vein in the other. An artery in one twin draining into a vein of the other, bringing oxygenat- ed blood to its sibling, is definitive for twin-twin transfusion syn- drome. An artery-to-artery con- nection is protective for twin- twin transfusion syndrome. The difference affects how the patient should be counseled.

A diagnosis of twin-twin trans- fusion syndrome requires not just discordant sizes/weights but also the presence of polyhy- dramnios in one fetal sac and oligohydramnios in the other.

The variability of twin-twin transfusion syndrome cases in age of onset, severity, acuity, and degree of discordance in size, weight, and amniotic fluid vol- umes can make it hard to recog- nize.

Unequal placental sharing and twin transfusion syndrome can occur separately or concur- rently. “I think of monochorion- ic placentas like snowflakes. They’re all different, and anato- my is crucial,” she said.

If one twin has oligohydramnios and the other has normal amniotic fluid volume, it may be a case of unequal placental shar- ing, or there may be a more com- mon problem such as a renal anomaly or rupture of mem- branes.

“We have a fair number of pa- tients referred in for ‘twin-twin transfusion syndrome’ and it turns out that one twin has rup- tured membranes and there isn’t twin-twin transfusion syndrome at all,” Dr. Mary E. Norton said in a joint presentation with Dr. Feldstein. “It’s important to think about the common things that can cause oligohydramnios,” said Dr. Norton, director of perinatal medical genetics and professor of obstetri- cics, gynecology, and reproductive sciences at UCSF.

Progesterone Stems Preterm Delivery in Short-Cervix Cases

BY MARY ANN MOON
Contribution Writer

PROGSTERONE appears to reduce the rate of preterm delivery in asymptomatic women found to have a short cervix on transvaginal ultrasound performed mid- way through gestation.

However, progesterone does not reduce the rate of preterm delivery in another group of high-risk women—those carrying twins, researchers in two separate randomized clinical trials reported.

Since the 2003 publication of a report that weekly injections of 17 α-hydroxyprogesterone (17P) decreased the rate of recurrent preterm birth, numerous studies have been undertaken to assess the hor- mone’s potential benefit in different high-risk populations. Now, Dr. Eduardo B. Fonseca of King’s College Hospital, Lon- don, and his associates have evaluated the effect of 200-mg vaginal capsules of mi- crodized progesterone in women who were found at routine midterm ultra- sound screening to have a short cervix (15 mm or less).

The researchers tested the vaginal for- mulation of progesterone because of its enhanced bioavailability and reduced in- cidence of injection site reactions compared with the oral formulation. They chose a high dose rather than the 100-mg dose used in previous studies, because they considered

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*Sources: Dr. Norton and Dr. Feldstein*