

High BMI Lowers Detection of Fetal Abnormalities

BY SUSAN BIRK
Contributing Writer

CHICAGO — High maternal body mass index decreases the ability to detect fetal abnormalities with standard or targeted second-trimester ultrasound, a retrospective study of more than 10,000 examinations has shown.

The study found a significant decrease in detection of anomalous fetuses with increasing body mass index (BMI) with stan-

dard ultrasound and also when standard and targeted ultrasound were combined.

"Counseling may need to be modified to reflect the limitations of sonography in the setting of obesity," Dr. Jodi S. Dashe of the University of Texas at Dallas reported at the World Congress on Ultrasound in Obstetrics and Gynecology.

"It may be harder to identify fetal anomalies in obese women because the ultrasound transducer is farther from the fetus, which limits the image resolution,"

Dr. Dashe commented in an interview.

In the present study, researchers reviewed pregnancies that received standard or targeted ultrasound between 18 and 24 weeks of gestation and were delivered at the University of Texas Southwestern Medical Center between 2003 and 2007.

Standard ultrasound had been done in keeping with the criteria of the American Institute of Ultrasound in Medicine. Targeted ultrasound was performed for specific high-risk indications.

The researchers included all potentially life-threatening structural abnormalities in their analysis as well as those requiring surgery, even if detection of the anomaly would not be expected with ultrasound. Researchers used a prospectively kept database of birth defects to verify ultrasound-detected anomalies.

An anomalous fetus was considered detected if an abnormality of the relevant organ system was identified. The researchers used patients' BMIs at first prenatal visit in their analysis, categorizing BMI according to National Institutes of Health criteria: normal (less than 25 kg/m²), overweight (25-29.9), or class I (30-34.9), II (35-39.9), or III (greater than 40) obesity.

Of 10,112 standard and 1,023 targeted ultrasound examinations, anomalies were verified in 181 infants (1.6%).

Standard ultrasound detected 66% of anomalous fetuses in women with a normal BMI, but only 49%, 48%, 42%, and 25% of anomalous fetuses in women in the overweight and class I, II, and III obesity categories, respectively.

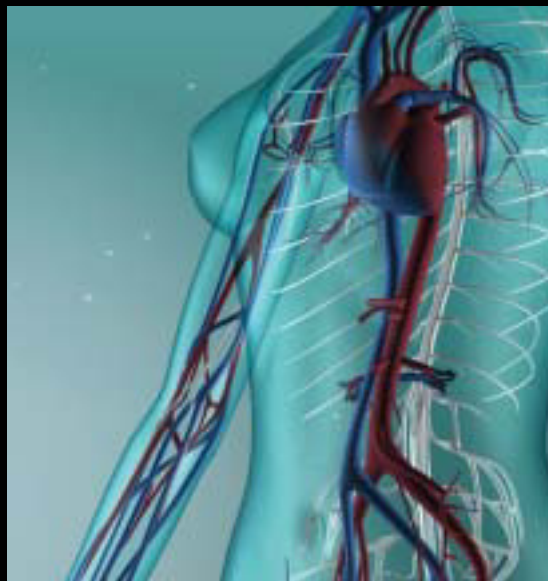
The combined detection of anomalous fetuses was 68% in women with a normal BMI but only 55%, 49%, 47%, and 43% in women in the overweight and class I, II, and III obesity categories.

Previous research on fetal cardiac visualization and BMI also found significantly higher rates of persistent suboptimal ultrasonographic visualization (SUV) on a repeated ultrasound examination in obese women, compared with nonobese women.

SUV rates increased with increasing BMI in obese patients (J. Ultrasound Med. 2005;24:1205-9).

Dr. Dashe said she and her colleagues hope to do further research in this area. She had no financial conflicts of interest to report.

Innovative Stem Cell Solutions



CryoCell
INTERNATIONAL

Cryo-Cell provides expert umbilical cord blood banking that meets the highest standards... Yours.

Since 1992, over 150,000 families have trusted Cryo-Cell to preserve their babies' precious stem cells.

Cryo-Cell is one of the largest, highly-accredited, and most established family cord blood banks. Our industry-leading quality is evident in our flawless success rate in releasing viable stem cells for life-saving transplants, and our innovation keeps us on the cutting edge of stem cell solutions.

C'ELLE
YOUR MONTHLY MIRACLE

Advances in stem cell therapies have the potential to change the future of medicine.

Stem cells found in menstrual fluid may be the basis of medical treatments for serious diseases that are the leading causes of serious health issues of women as they age. C'elle empowers women to collect and store these highly prolific stem cells.

Recommend C'elle to your patients and give them the opportunity to impact their future health today!

Call for more information about becoming an official C'elle Distributor.

For more information please call or visit us online

1-866-524-7476

www.Cryo-Cell.com www.CELLE.com

Detection of anomalous fetuses was 68% in women with a normal BMI vs. 49%, 47%, and 43% in women in the class I, II, and III obesity categories.

THE LEADER
IN NEWS
AND
MEETING
COVERAGE

Ob.Gyn. News

Thanks For Making Us **#1**

Source: The Nielsen Company, Focus® Medical/Surgical June 2008 Readership Summary; Obstetrics and Gynecology Section, Tables 701 and 702 Projected Average Issue Readers.