some sense. However, the main form of physical activity in the
control group was walking throughout pregnancy, and the
levels of physical activity in the 3 trimesters in the control
group had no significant difference. Notably, the higher levels
of physical activity in the exercise group was mainly attrib-
uted to greater levels of moderate-intensity exercise, which
was the supervised moderate cycling. Thus, as to the constant
level of physical activity in your pilot study, we’d like to
suggest that maybe a detailed prescription of exercise during
pregnancy and ongoing reinforcement from clinicians can
bring some improvements.2

Based on the medical records of 17,186 pregnant women
from 13 hospitals in Beijing during 2010 through 2011, we
found that women with fasting plasma glucose (FPG) ≥5.10
mmol/L during first trimester accounted for 11.4% of the
total study population. Whereas FPG decreased with
increasing gestational age, and only 39.8% of women with
early FPG ≥5.10 mmol/L were diagnosed as GDM during
24–28 gestational weeks, we do not recommend using early
FPG ≥5.10 mmol/L as the criteria to diagnose GDM in
China, but rather, we think of it as a high-risk factor.3,4

Nevertheless, among the 265 women who underwent the
75-g oral glucose tolerance test in our study, there were 143
(exercise group, 76; control group, 67) and 122 (exercise
group, 56; control group, 66) women with early FPG <5.10
mmol/L (exercise group, 4.8±0.2 mmol/L; control group,
4.7±0.3 mmol/L) and ≥5.10 mmol/L (exercise group, 5.4±
0.2 mmol/L; control group, 5.4±0.2 mmol/L), respectively.
And the frequency of GDM both obviously decreased through
supervised moderate exercise intervention in women with
either early FPG <5.10 mmol/L (11.8% vs 28.4%, P=.013)
or ≥5.10 mmol/L (35.7% vs 53.0%, P=.055).

Chen Wang1
Yumei Wei1
Department of Obstetrics and Gynecology
Peking University First Hospital
Beijing, China
1These authors contributed equally to this article.

Huixia Yang
Department of Obstetrics and Gynecology
Peking University First Hospital
Beijing, China
yanghuixia@bjmu.edu.cn

Supported by “The role of exercise on preventing the development
of gestational diabetes mellitus in overweight and obese pregnant women”
from the Capital Characteristic Clinical Application Research Fund
(Z151100004015088) and “Diabetes management beyond pregnancy”
from the World Diabetes Foundation (WDF 14-908).

The authors report no conflict of interest.

REFERENCES
comparison of beliefs about exercise during pregnancy between
Chinese and Australian pregnant women. BMC Pregnancy Childbirth
benefits and overcoming barriers. Am J Obstet Gynecol 2015;212:
442-9.
plasma glucose in the first prenatal visit to diagnose gestational diabetes
4. Yang HK. Diagnostic criteria for gestational diabetes mellitus (WS 331

© 2017 Elsevier Inc. All rights reserved. http://dx.doi.org/10.1016/j.ajog.2017.05.010

Comment on: Predicting the difficulty of operative vaginal delivery by ultrasound measurement of fetal head station

TO THE EDITORS: We read with interest the study by
Kasbaoui et al,1 who investigated whether measurement of
the perineum-to-skull ultrasound distance was predictive of a
difficult operative vaginal delivery (OVD) using a prospective
cohort study. The main finding highlights that measurement of
≥40 mm is a reproducible and predictive index of the
difficulty of OVD. We congratulate the authors on their
efforts to define an optimum threshold distance to predict a
difficult OVD.

Nevertheless, we would like to raise some key points. First,
the authors concluded that ultrasound is a useful supple-
mentary tool to the usual clinical findings. We do not agree
because the design and the results do not allow this conclusion
and may induce some medicolegal concerns for physician
performing OVD.2 In the study, the primary outcome was a
difficult OVD but OVD may be potentially performed without
difficulty and without perinatal morbidity, which is the goal
for each physician. Second, the primary outcome seems
inappropriate to demonstrate a significant reduction of peri-
natal morbidity after OVD. An attempted OVD associated
with a maternal or neonatal morbidly event (ie, severe peri-
nal tears, neonatal skull fracture) is a better primary outcome
to evaluate the usefulness of ultrasound before OVD. Third,
an area under the curve of 0.63 is poor to predict difficult
OVD and it may be decreased to predict severe maternal or
neonatal morbidity associated with OVD due to the limited
number of complications in the sample, which might not have
been high enough to reveal a statistically significant effect of
the intervention. Fourth, this situation seems to present the
perfect setting for a randomized trial to demonstrate the

1These authors contributed equally to this article.
usefulness of ultrasound before OVD to decrease perinatal morbidity. We may hypothesize that ultrasound before OVD will decrease OVD, and increase the cesarean delivery rate without decreasing maternal and neonatal morbidity. A robust pragmatic randomized trial evaluating the influence of ultrasound determination of fetal head position during the second stage of labor on mode of delivery showed that systematic ultrasound examination should not improve management of labor and increased the rate of OVD without decreasing maternal and neonatal morbidity.\(^2\)

We are concerned that these methodologic limitations may impact the validity of the study’s findings and the authors may moderate the conclusions since no randomized trial exists and no clinical practice guidelines promote routine use of ultrasound assessment of fetal head station before OVD.

Guillaume Ducarme, MD, PhD
Department of Obstetrics and Gynecology
Centre Hospitalier Departemental La Roche-Sur-Yon
La Roche-Sur-Yon, France
g.ducarme@gmail.com

Jean-François Hamel, MD, PhD
Clinical Research Center
Angers University Hospital
Angers, France

Loïc Sentilhes, MD, PhD
Department of Obstetrics and Gynecology
Bordeaux University Hospital
Bordeaux, France

The authors report no conflict of interest.

REFERENCES

© 2017 Elsevier Inc. All rights reserved. http://dx.doi.org/10.1016/j.ajog.2017.05.011

REPLY

We would like to sincerely thank Ducarme et al for their comment about our article assessing whether measurement of the perineum-to-skull ultrasound distance (PSUD) was predictive of a difficult operative vaginal delivery (OVD).\(^1\)

We agree that the evaluation of maternal and/or neonatal morbidity would have been a more relevant outcome rather than the OVD difficulty. Fortunately, we did not have serious morbidity issues and there was no statistically significant association between PSUD and maternal or neonatal outcomes. We believe that this reflects a cautious use of instrumental extraction and that the prediction of difficult OVD is still of interest. At last, it is to be noted that another article found that ultrasound was predictive of OVD failure.\(^2\)

We also agree that the prediction for difficult OVD based on PSUD alone is poor but we raised the point that it was still better than prediction based on digital examination. And yet no one would stop doing digital examination! Moreover, we stated in our conclusion that ultrasound is a useful supplementary tool to the usual clinical findings, ie, parity, expected fetal weight, and presentation.

At last, we agree that the interest of ultrasound before OVD should be evaluated by a randomized controlled trial. The findings from the pragmatic randomized trial showing that knowledge of fetal occiput position determined by ultrasound was associated with an increase in OVD are of interest.\(^3\) Even if it is surprising somehow, it makes sense because clinical examinations underestimate malpositions and physicians are aware that those are associated with complicated deliveries. Still, we believe that we would be better off if we learn how to use appropriately some new relevant ultrasound findings, rather than putting them aside for fear of misinterpreting them.

Nicolas Sananès, MD, MPH
Department of Obstetrics and Gynecology
Strasbourg University Hospital
UMR-S 1121 Inserm
Biomaterials et Bioengineering
Strasbourg, France
nicolas.sananes@chru-strasbourg.fr

Sidi Kasbaoui, MD
Department of Obstetrics and Gynecology
Strasbourg University Hospital
Strasbourg, France

François Severac, MD
Department of Public Health
Strasbourg University Hospital
Strasbourg, France

The authors report no conflict of interest.

Presented as an oral communication at the 37th annual meeting of the Society for Maternal-Fetal Medicine, Las Vegas, NV, January 28, 2017.

REFERENCES

© 2017 Elsevier Inc. All rights reserved. http://dx.doi.org/10.1016/j.ajog.2017.05.012