



Letter to the Editor

Perception of fetal movement in the pregnant women



Maternal perception of fetal movements has been widely used for the evaluation of the fetal wellbeing, based on the observation that pregnant women consistently noting regular fetal movement are associated with better pregnancy outcome, and by contrast, in which maternal perception of reduced fetal movements is frequently accompanied with a significant increase of adverse perinatal outcomes, such as an increased risk of intrauterine fetal death, fetal growth restriction, preterm labor, oligohydramnios, and fetal abnormality.^{1–4} Although the decrease and/or absence of maternal perception of fetal movement does not always indicate the worst perinatal outcomes, many reports have shown that more than half of pregnant women might find that fetal movements gradually decrease and finally are absent several days before the occurrence of intrauterine fetal death.¹ In fact, it may be a most common practice to introduce fetal movement counting when there is already suspected fetal compromise.⁴ Taken together, it suggests that fetal movement might be an important issue for pregnant women, and one of the most important parts during the prenatal care. Therefore, education of women about the perception of fetal movement is important when women were found that they have a baby. In the August issue of the *Journal of the Chinese Medical Association*, Drs. Akkaya H and Buke B published a very interesting article addressing this topic, entitled “a frequently asked question: Is it normal not to feel my baby's movements yet?”.⁵ They focused on the early-stage pregnant women (between 16 gestational weeks and 20 gestational weeks), by conducting a prospective comparative study to evaluate 423 pregnant women who reported the first maternal perception of fetal movements and the authors separated them into three groups based on early perception (≤ 25 th percentile, defined as at the 16 gestational weeks, $n = 152$); average perception (> 25 th and < 75 th percentile, defined as at the 17 gestational weeks, $n = 141$); and late perception (≥ 75 th percentile, defined as at the 19 gestational weeks, $n = 130$).⁵ The authors found that higher parity, advanced maternal age, higher levels of education, and lower body mass index (BMI) as well as placental site located on the posterior uterine wall are associated with early perception of fetal movement in the pregnant women.⁵ This study is impressive and of value; however, some results are confusing and need further verification.

First, in regards to maternal age, the authors wrote the following positive findings, including a statistically significant

difference in all three groups ($p = 0.03$) and a significantly advanced age in the early perception compared to average perception ($p = 0.009$).⁵ It is interesting to find that the authors wrote the maternal age in the early perception was older than the late perception, but the difference was not statistically significant ($p > 0.017$).⁵ It is relatively confusing. What is the meaning of p value is greater than 0.017? Why it did not present p value > 0.05 ? It needs authors' explanation.

Second, the similar statistical error might be seen in the other description of the results. In terms of follow-up status, the authors wrote when the three groups were compared according to follow up status, the difference was not statistically significant ($p = 0.035$).⁵ It also makes the audience confused when they read this report. In the “Methods” section, the authors defined that a p value less than 0.05 was considered statistically significant,⁵ but when p value is 0.035, why the authors said that the difference was not statistically significant?

In addition, the authors wrote that the women who continued regular follow-up examinations were more in early perception groups ($p = 0.011$).⁵ This description is also not clear. It is highly possible that selection bias may be present. Since the current study is prospective comparative study, the study design should include the detailed time schedule, that means that every enrolled pregnant woman should visited the obstetricians at the “due” time. However, the current study might not clearly demonstrate this time schedule. If pregnant women see the doctors frequently or earlier, it is possible to gain the positive answer for the question which is a tile of the current study (is there any fetal movement yet?). The authors should clarify this.

We should claim that the above-mentioned question did not compromise the value of the current publication, because the study tried to announce the important role of “fetal movement” during the prenatal care in routine. It is impossible for physicians who take care of pregnant women every moment, since the women should take care of their baby by themselves. Therefore, well prenatal education for these pregnant women to concern their fetal wellbeing is important. “Fetal movement”, one of the most items of biophysical profile,^{6,7} is an easy and cost-effectiveness (no cost) but a highly valuable tool to alarm the possible catastrophic problems of the fetuses before they occur.^{8,9} Finally, we are looking forward seeing the authors' response.

Conflicts of interest

The authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

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