Does manual rotation really increase the spontaneous vaginal delivery rate?

TO THE EDITORS: We read with great interest the article by Bertholdt et al,1 about the association between spontaneous vaginal delivery and manual rotation during labor for occiput posterior or transverse positions. These authors analyzed 7 randomized controlled trials and found that manual rotation was associated with spontaneous vaginal delivery only for the occiput posterior position (risk ratio=1.08; 95% confidence interval, 1.01–1.15). However, we propose the following methodological concerns.

First, in the study of Broberg et al,2 which was included in the meta-analysis, the authors mentioned that “For both groups, manual rotation could be performed later in the second stage if indicated for slow progress or other usual indications, such as concern for fetal well-being and need to expedite delivery.” This means that prophylactic early manual rotation was performed in the early manual rotation group and in some patients in the control group. Therefore, this study may not have been suitable for selection in the meta-analysis.

Second, in the study of Yang et al,3 except for manual rotation, position management and a U-shaped birth stool were also used in the intervention group. The difference in spontaneous delivery rate between the intervention and control groups in this study may not have been caused by manual rotation. At the same time, “There were 196 women in the intervention group and 188 in the control group,” which was not consistent with the extracted data in the study of Bertholdt et al.1 Moreover, this study had the largest sample size and an overwhelming weight (83.4% of 5 studies included) after stratification by position type in that meta-analysis, overpowering the other 4 studies with negative results.

Third, when performing the sensitivity analysis of the meta-analysis, after omitting the study by Yang et al,1 the risk ratio decreased to 1.02 (95% confidence interval, 0.86–1.20; P=.84 in a random effects model), meaning that the conclusion of “manual rotation was associated with spontaneous vaginal delivery only for the occiput posterior position” was not supported.

In brief, more randomized controlled trials are necessary to confirm whether manual rotation could increase the spontaneous vaginal delivery rate. However, it is worth noting that it is a safe intervention without adverse maternal and neonatal events. Obstetricians could try manual rotation in patients with occiput posterior or transverse positions if taking into account the reduction in occiput posterior or transverse positions at delivery and in episiotomies according to the meta-analysis by Bertholdt et al.1

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