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Letter to the Editor

Response to 'Uterine fundal pressure: Is it really a culprit of poor maternal and neonatal outcome?' by Shigeki Matsubara

Dear Editor,

We wish to respond to some concerns[1] raised about the data we published recently. An observational study was conducted over 1 year involving a considerably large number (8097) of women in labor. The study documented what actually took place in the delivery room.[2] We reported the prevalence of the uncommonly documented fundal pressure (FP) maneuver as 24.3%. In the USA, only 12% of cases that underwent this maneuver were documented.[3]

FP was applied by our skilled obstetricians. The term 'under supervision' meant under the care (i.e. attention and management, implying responsibility for safety of the women) of the obstetrics team.

Uterotonics administered in the first stage were stopped at the onset of the second stage, so as not to affect analysis of the duration of the second stage. Vacuum extraction and forceps cases were excluded, as the adverse effects of these procedures are well documented and comparing them with FP was beyond the scope of the study.

Any procedure studied should be indicated in the first place. In our work, indications to apply FP in both primiparous and multiparous groups were the same, however the primiparous group experienced significantly more maternal and fetal adverse events. Hence, not all indications to apply FP would be considered confounding factors. Some indications might be causing maternal or fetal adverse effects; however, the role of FP itself cannot be ruled out. Further statistical analysis would have made the picture sharper, we agree, but the message was clear, we believe, as we tested the safety and effectiveness of this maneuver.

Routine application of FP in most primiparous women at busy obstetric units, like ours, with consequent shortening of the second stage, represented a helpful role of the maneuver. Even if applied in the middle of the second stage, being the only variable there, FP clearly made it 'shorter' than it would have been.

Admission to the neonatal intensive-care unit, though prevalent in the FP group, was not solely due to this maneuver. Also, Apgar score changes in our work were insignificant.

A Cochrane systematic review found no evidence of harm or benefit of the FP maneuver; however, this report also concluded that FP is applied to shorten the second stage, and that it may cause adverse events for both mother and neonate.[4] Adverse events may include uncommon problems, even with very few attempts of the maneuver, such as maternal rib fracture.[5] These risks may deter novice obstetricians from practicing FP. Other maternal incidents, such as uterine rupture, were reported to be iatrogenic due to 'inappropriate use' of FP.[6,7] Awareness of such adverse outcomes does not imply a need to abandon the maneuver.

In our conclusion we made it clear that this maneuver could be beneficial if applied by the right person, at the right time and on the right woman. Consideration of the risks would even make its application more valuable. Thus, our data are far from being pessimistic regarding this maneuver.

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References

1. Matsubara S. Uterine fundal pressure: Is it really a culprit of poor maternal and neonatal outcome? *J Obstet Gynaecol Res* 2014; **40**: 1956.
2. Moiety FM, Azzam AZ. Fundal pressure during the second stage of labor in a tertiary obstetric center: A prospective analysis. *J Obstet Gynaecol Res* 2014; **40**: 946–953.

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3. Api O, Balcin ME, Ugurel V, Api M, Turan C, Unal O. The effect of uterine fundal pressure on the duration of the second stage of labor: A randomized controlled trial. *Acta Obstet Gynecol Scand* 2009; **88**: 320–324.
4. Verheijen EC, Raven JH, Hofmeyr GJ. Fundal pressure during the second stage of labour. *Cochrane Database Syst Rev* 2009; (4): CD006067.
5. Matsubara S, Mita Y, Kikkawa I, Suzuki M. Maternal rib fracture after manual uterine fundal pressure. *Rural Remote Health* 2012; **12**: 2062.
6. Kurdoglu M, Kolusari A, Yildizhan R, Adali E, Sahin HG. Delayed diagnosis of an atypical rupture of an unscarred uterus due to assisted fundal pressure: A case report. *Cases J* 2009; **2**: 7966.
7. Pan HS, Hwang JL, Lee CY *et al*. Uterine rupture in an unscarred uterus after application of fundal pressure. A case report. *J Reprod Med* 2002; **47**: 1044–1046.