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The authors report no conflict of interest.

REFERENCES

1. Einerson BD, Son M, Schneider P, Fields I, Miller ES. The association between intrauterine balloon tamponade duration and postpartum hemorrhage outcomes. *Am J Obstet Gynecol* 2017;216:300.e1-5.
2. Matsubara S, Kuwata T, Usui R, Ohkuchi A. "Holding the cervix" technique for post-partum hemorrhage for achieving hemostasis as well as preventing prolapse of an intrauterine balloon. *J Obstet Gynaecol Res* 2013;39:1116-7.
3. Matsubara S, Baba Y, Morisawa H, Takahashi H, Lefor AK. Maintaining the position of a Bakri balloon after cesarean section for placenta previa using an abdominal traction stitch. *Eur J Obstet Gynecol Reprod Biol* 2016;198:177-8.
4. Matsubara S, Baba Y, Takahashi H. Preventing a Bakri balloon from sliding out during "holding the cervix": "fishing for the balloon shaft" technique (Matsubara). *Acta Obstet Gynecol Scand* 2015;94:910-1.

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REPLY



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We thank Dr Matsubara and colleagues for their thoughtful comments. We appreciate the important work that they are doing to prevent expulsion of intrauterine balloon tamponade (IUBT) devices. These patients were excluded from our study since cases of failed IUBT placement or expulsion did not address the central research question of IUBT duration and postpartum hemorrhage outcomes, however we look forward to reading more results of the impact of their techniques.

We also welcome the opportunity to address their concerns. We agree that selection bias cannot fully be discounted given our study design. Regarding the expertise of providers determining duration of IUBT, we want to clarify that the study site is an academic institution where 48 residents, supervised by >140 private and academic generalist

obstetrician-gynecologists, fellows, and maternal-fetal medicine specialists, manage cases of postpartum hemorrhage with IUBT. Thus, the decision to remove the balloon was not dictated by a few experts or by protocol, but rather was left to the discretion of a wide spectrum of providers.

They also raise concern of unmeasured confounding, particularly regarding differences in uterine tone after IUBT. While sustained atony was not a variable we could measure, we suspect that ongoing atony would have prompted additional uterotonic use, use of additional procedural interventions, or contributed to additional postplacement blood loss, none of which differed between the groups. Other unmeasured clinical characteristics may have informed the "intuition" of the clinician guiding decisions about IUBT removal, however the absence of measurable differences provides some reassurance.

Despite attempts to address these issues in our study design, we have acknowledged the potential for bias in our study, and do not believe that our study definitively answers the question of how long IUBT should be used. A prospective randomized trial of IUBT duration would more definitively answer this question and we hope our observational study provides the preliminary data needed to inform such a trial. ■

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