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Correspondence

Prophylactic use of Bakri balloon for placenta previa surgery:
A simple procedure to prevent balloon prolapse

Dear Editor,

Soyama and colleagues, esteemed researchers of placenta previa (PP), analyzed when prophylactic Bakri balloon use was unsuccessful for PP [1]. Of 70 patients with PP, hemostasis was achieved with the first-time Bakri balloon in 61 (87%; 61/70), whereas first-time Bakri did not achieve hemostasis in the remaining 9; 8 showed “balloon prolapse”, requiring second-time Bakri, which achieved hemostasis. Only one required arterial embolization.

When evaluating the effectiveness of intrauterine balloon use, we usually define success as when the balloon achieves hemostasis without further invasive procedures, and not when one-time balloon use achieves it. Of the 70, hemostasis was achieved in 61 with one-time Bakri and in 8 with two-time Bakri, meaning that the Bakri balloon eventually achieved hemostasis in 69 (61 + 8; 99% (69/70)). Soyama et al. modestly stated a success rate of 87% but we believe it was 99%. We also often use the Bakri balloon prophylactically for PP. Their findings made us confident with our strategy.

Inserting the Bakri balloon vaginally after its prolapse is difficult. Usually, strong uterine contraction occurs, pushing the balloon out of the uterus. When this uterine contraction persists, the re-insertion is difficult. We devised an easy method to vaginally insert the balloon [2], and a procedural video is available free of charge. Cervical lips are held by forceps, being pulled to the vaginal side. The balloon is grasped softly by forceps and pushed into the cervix/uterus with digital guiding and under the ultrasound observation.

Patients with balloon prolapse bled more. Although it is unclear whether a large amount of bleeding causes balloon prolapse or prolapse causes bleeding, balloon prolapse should be prevented. Cervical cerclage was placed after balloon insertion to prevent prolapse, which requires some time. We reported a simple method: after balloon placement, the cervix should be closed by round forceps (Matsubara-Takahashi (MT) holding the cervix) [3–5]. Based on our experience, “holding the cervix” does not conceal massive bleeding; the cervix is not completely closed and thus blood spills out over the cervix on massive uterine bleeding [5]. We employed this method not only to prevent balloon prolapse but also postpartum hemorrhage in general [5].

We wish to mention another method to prevent balloon prolapse. Khalil et al. pulled the balloon through the abdominal wall in the cephalad direction using a thread; the thread was

cut after abdomen-closure, which I cited [4]. We modified this method. The balloon is pulled via a thread just until MT-holding is completed. Prolapse frequently occurs during the surgery, i.e., before placing MT. To prevent this, we pull the balloon-shaft cephalad only during the surgery. Once MT is placed, this traction thread is cut before abdomen-closure. This is like fishing for the balloon during the surgery: catch and release, thus, it is referred to as the “fishing technique (Matsubara)” [3]. Combination of fishing (Matsubara) and MT almost completely prevents balloon prolapse.

Here, we described our decade-long experience, which may supplement Soyama et al.’s excellent report. We believe that there is still room to improve utilization of the Bakri balloon.

Conflicts of interest

The authors have no conflicts of interest relevant to this article.

Approval of institutional review board

Not needed.

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None.

Patient anonymity and informed consent

Not applicable.

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We described these methods previously and cited them in this manuscript. Due to the journal limitation of only up to 5 references, some articles are not cited.

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Abbreviation used: PP, placenta previa.

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