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AOGS LETTER TO THE EDITOR

MY (Matsubara–Yano) uterine compression suture to prevent acute recurrence of uterine inversion

Sir,

Puerperal uterine inversions are repositioned either manually or under laparotomy. Uterine inversion may recur both immediately after the current episode (acute recurrence or re-inversion) (1–3) or during the next delivery (1). It is usually accompanied by uterine atony (1–3), which requires repositioning, prophylaxis against re-inversion, and treatment of atonic bleeding.

Uterine compression sutures, including B-Lynch or Hayman sutures (4), have become widely used for postpartum hemorrhage, especially for atonic bleeding. We were the first to employ uterine compression sutures for prophylaxis of acute inversion recurrence (1). A primiparous woman suffered uterine inversion after vaginal delivery, which was repositioned under laparotomy; however, during laparotomy a "dimple" appeared in the uterine fundus, indicating re-inversion. Uterine atony also occurred. Therefore, we performed the Matsubara–Yano (MY) uterine compression suture (Figure 1a), which prevented re-inversion and also achieved hemostasis (1,5). Interestingly, the woman also suffered uterine inversion during the next vaginal delivery, which was repositioned manually. Thus, both "acute" and "next time" recurrence occurred.

Recently, Mondal et al. (2) reported uterine compression sutures for prophylaxis of acute inversion recurrence: a Hayman suture was done in two patients. Although this procedure worked well to both prevent re-inversion and effect hemostasis, the longitudinal sutures migrated to the middle of the uterine fundus, resulting in no compression at the periphery (Figure 1b). We commented that the MY suture might have been better than the Hayman suture (6).

We recently encountered, to our knowledge, the fourth patient in whom uterine compression suture was inserted to prevent acute inversion recurrence. This case is unique in that inversion occurred twice in consecutive cesarean sections (CS). A 33-year-old 2-para woman (two previous CSs) underwent a third CS. During her second CS, the uterine fundus, where the placenta adhered, was inverted. This was manually repositioned. We were concerned that the same might recur during the current CS, which it did. We manually repositioned the fundus during the CS, but the uterus became atonic. A MY suture was performed, to prevent re-inversion and to achieve hemostasis.

We must be aware that uterine inversion can recur both "acutely" and "next time". As described before (1,2,5), Hayman longitudinal sutures tend to migrate to the middle of the fundus and may also slide off (Figure 1b); the latter was a concern of Hayman himself (4). The B-Lynch suture also has this weakness (5–7). In addition, longitudinal sutures may push the uterine fundus in a cephalad to caudal direction, possibly resulting in the uterine fundus being inverted (8). The MY suture avoids these three concerns. An intrauterine balloon (3) or abdominal cervical cerclage (9) can also prevent re-inversion.

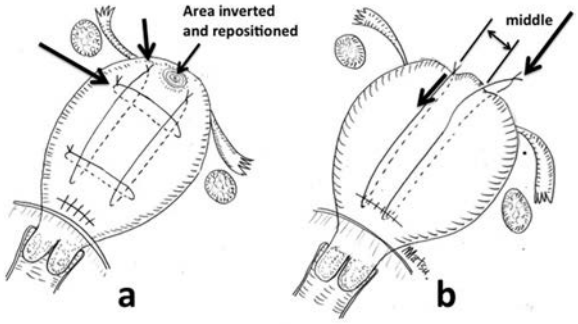

Figure 1. Matsubara–Yano (MY) uterine compression suture (a) and the Hayman suture (b). (a) MY suture: Two [originally three (1)] longitudinal sutures and two transverse sutures are placed. The former penetrates the fundal edge (short arrow) and the latter is placed lateral to the former (long arrow): they prevent the longitudinal suture from sliding off or migrating to the middle of the uterine fundus, as may happen with a Hayman or B-Lynch suture. (b) Hayman suture: Longitudinal suture may migrate to the middle of the fundus (marked as middle) as Mondal et al. (2) noted and it may slide off as Hayman et al. (4) stated (long arrow). Without longitudinal sutures penetrating the fundal edge, the fundus may encounter "inward" pressure (short arrow), resulting in the fundus being inverted. MY suture (a) prevents these three problems.

For a compression suture we would like to advocate the MY suture, including for "next time" recurrence, where there is no effective prophylaxis at present.

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