Archives of Gynecology and Obstetrics (2019) 299:1751–1752
https://doi.org/10.1007/s00404-019-05114-y

CORRESPONDENCE

Modified hysterectomy for placenta increta and percreta: modifications of what?

Shigeki Matsubara[1] · **Hironori Takahashi**[1] · **Yuji Takei**[1]

Received: 17 January 2019 / Accepted: 4 March 2019 / Published online: 11 March 2019

Dear Editors,

Hussein et al. claimed that four technical modifications were made in cesarean hysterectomy for placenta accreta spectrum (PAS) disorders [1]: (1) the retroperitoneum was opened to laterally mobilize the ureter, (2) cutting and ligating vessels running along the broad ligament without parametrium-vessel ligation, (3) extensive bladder separation, and then (4) cutting and ligating the uterine vessels. We have some concerns.

Firstly, let us consider which of (1)–(4) was the most important and new modification, different from orthodox surgery. In PAS, the entire pelvis, usually occupied by the uterus, prevents us from first opening the retroperitoneum [2]; however, some surgeons use this technique [3] and, thus, it is not new. Cutting and ligating the broad ligament is a routine procedure. A separate parametrium-vessel ligation is not always required, especially in supracervical hysterectomy [4] and, thus, it is also not new. Then, is the order of (3) → (4) a *modification*? The bladder was extensively separated to the level of placental attachment without ligating the uterine artery. Thus, stage (3) is performed before ligating the uterine vessels. Engorged aberrant vessels are usually present at the bladder separation site [2] and, thus, separating the bladder without ligating the uterine vessels may cause marked bleeding. Thus, usually, the uterine artery is first cut and ligated, followed by bladder separation. However, depending on the situation, either artery ligation or bladder separation can be performed interchangeably or in a step-by-step manner, i.e., bladder separation → artery ligation → further bladder separation. The order of (3) and (4) can be chosen in a patient-by-patient manner. Thus, the order of (3) → (4) may not be new.

Secondly, many patients underwent supracervical hysterectomy. Which hysterectomy, total vs. supracervical, should be employed in PAS is controversial [5]. We consider that either becomes a choice only if hemostasis can be achieved. If supracervical hysterectomy is performed, separate parametrium-vessel ligation is not always required, as mentioned above. For example, we sometimes employ the "amputation first technique", in which definite uterine artery ligation before hysterectomy is not always needed [4]. After tentative bladder separation, we amputate the uterine body adequately and obtain a clearer surgical view. Then, we ligate uterine vessels, further separate the bladder, and remove the remaining cervix if necessary. Is intentional supracervical hysterectomy a *modification*?

Thirdly, we are concerned about the use of uterotonics. We had negative experiences as uterotonics induced strong uterine contraction, causing partial placental separation with marked bleeding [2]. Some areas of the placenta are sometimes free from PAS, being easily separated during surgery, which uterotonics sometimes enhance [2, 5]. We wonder whether the use of uterotonics, highlighting a placental demarcation line, is mandatory for this technique. Is uterotonics' usage also a *modification*?

Hussein et al. claimed that with their technique, a ureteral stent or interventional radiological approach is not needed. If some surgical technique actually provides a good outcome, it is an effective procedure: we commend Hussein et al. for their efforts. However, a surgical technique should be reproducible by every doctor. The real benefit of their technique should be described in more detailed manner.

✉ Shigeki Matsubara
matsushi@jichi.ac.jp

[1] Department of Obstetrics and Gynecology, Jichi Medical University, 3311-1 Yakushiji, Shimotsuke, Tochigi 329-0498, Japan

Author contributions SM identified the significance and wrote the paper. HT and YT co-wrote the paper and edited the manuscript.

Funding No funding was obtained for this research.

Compliance with ethical standards

Conflict of interest The authors report no conflict of interest.

Ethical approval Not needed.

Informed consent Not applicable.

Human participants or animal experiments This article does not contain any studies involving human participants or animals.

References

1. Hussein AM, Kamel A, Raslan A, Dakhly DMR, Abdelhafeez A, Nabil M, Momtaz M (2019) Modified cesarean hysterectomy technique for management of cases of placenta increta and percreta at a tertiary referral hospital in Egypt. Arch Gynecol Obstet. https://doi.org/10.1007/s00404-018-5027-7
2. Matsubara S, Kuwata T, Usui R, Watanabe T, Izumi A, Ohkuchi A, Suzuki M, Nakata M (2013) Important surgical measures and techniques at cesarean hysterectomy for placenta previa accreta. Acta Obstet Gynecol Scand 92(4):372–377
3. Atallah D, Safi J, Kassis NE (2013) Placenta accreta and beyond: Aesop's fables. Acta Obstet Gynecol Scand 92(12):1430–1431
4. Matsubara S, Ohkuchi A, Suzuki H, Kimura M, Takahashi H, Fujiwara H (2015) Cesarean hysterectomy: amputation-first technique (Matsubara). Acta Obstet Gynecol Scand 94(5):552–553
5. Allen L, Jauniaux E, Hobson S, Papillon-Smith J, Belfort MA, FIGO Placenta Accreta Diagnosis and Management Expert Consensus Panel (2018) FIGO consensus guidelines on placenta accreta spectrum disorders: Nonconservative surgical management. Int J Gynaecol Obstet 140(3):281–290