



## Case Report

# Disastrous delayed postpartum hemorrhage after 3 days of Shenghua decoction treatment

Hui-Hua Chen<sup>a</sup>, Yueh-Hung Chou<sup>b</sup>, Ho-Hsiung Lin<sup>a,c</sup>, Sheng-Mou Hsiao<sup>a,c,d\*</sup>

<sup>a</sup>Department of Obstetrics and Gynecology, Far Eastern Memorial Hospital, New Taipei, Taiwan, <sup>b</sup>Department of Pathology, Far Eastern Memorial Hospital, New Taipei, Taiwan, <sup>c</sup>Department of Obstetrics and Gynecology, National Taiwan University, College of Medicine and National Taiwan University Hospital, Taipei, Taiwan, <sup>d</sup>Graduate School of Biotechnology and Bioengineering, Yuan Ze University, Taoyuan, Taiwan

Submission : 26-Aug-2019  
Revision : 08-Sep-2019  
Acceptance : 20-Sep-2019  
Web Publication : 05-Dec-2019

### ABSTRACT

Taiwanese women frequently receive Shenghua decoction treatment for uterus involution. However, prolonged Shenghua decoction treatment can be detrimental. Herein, we report the case of a woman with disastrous postpartum hemorrhage after prolonged Shenghua decoction treatment. A 36-year-old woman underwent scheduled cesarean delivery due to cephalopelvic disproportion. On the 8<sup>th</sup> postpartum day, she started taking Shenghua decoction twice per day. Massive vaginal bleeding was noted after 3 days of Shenghua decoction treatment. Emergency hysterectomy was performed due to severe hypotension and refractory postpartum hemorrhage. Despite being rare, disastrous delayed postpartum hemorrhage could occur after 3 days of Shenghua decoction treatment. Further research might be needed to clarify the relationship between prolonged Shenghua decoction treatment and delayed postpartum hemorrhage.

**KEYWORDS:** *Postpartum hemorrhage, Shenghua decoction, Uterine atony*

### INTRODUCTION

Bleeding after the first 24 h is defined as delayed postpartum hemorrhage. Retained placenta or membranes, uterine tearing, and intrauterine infection are the common causes.

In Taiwan, more than 80% of women take Shenghua decoction during the 1<sup>st</sup> postpartum month [1]. Here, we report a rare case of disastrous delayed postpartum hemorrhage after 3 days of Shenghua decoction treatment.

### CASE REPORT

A 36-year-old woman, gravida 1, parity 1, had just given birth to a baby via cesarean delivery at a local delivery clinic due to cephalopelvic disproportion. The postoperative course was uneventful. On her 8<sup>th</sup> postpartum day, she started taking Shenghua decoction twice per day. On the 11<sup>th</sup> postpartum day, sudden onset of massive vaginal bleeding was noted, and she was then sent to her delivery clinic, where endometrial curettage was performed and intravenous uterotonics were administered for her postpartum hemorrhage, but massive vaginal bleeding persisted. The total estimated blood loss was approximately 2000 mL at that time. Hence, she was transferred to our emergency department. She arrived at our emergency department at 7:57 am, and her blood pressure was 110/46 mmHg, her pulse rate was 130 per min, and her oxygen saturation was 96%; therefore, we started fluid resuscitation. At 8:05 am, her blood pressure could not be measured, and her

pulse rate was 140/min, oxygen saturation was down to 89%, and change in consciousness was noted. Intensive resuscitation was performed, including central venous catheterization, blood component therapy, endotracheal intubation, and administration of uterotonic agents and vasopressor. Her hemoglobin was 2.6 g/dL, her hematocrit was 8.5%, and heavy vaginal bleeding continued despite uterotonic agents [Figure 1]. Owing to her extremely unstable hemodynamic status and continuous heavy bleeding, we did not consult interventional radiology for possible emergent transarterial embolization; instead, she was transferred to the operation room and underwent emergency total hysterectomy [Figure 1]. During hysterectomy, there was no retained product in the uterine cavity, and her cesarean wound of the uterus remained intact. A total of 20 units of packed red blood cells, 14 units of fresh frozen plasma, and 4 units of apheresis platelets were transfused during hospitalization [Figure 1].

The pathological examination of the uterus revealed that the endometrium was hemorrhagic and uneven, whereas the myometrium was soft and congested [Figure 2]. Microscopically, the uterus demonstrated postpartum changes. Placental accreta

#### \*Address for correspondence:

Dr. Sheng-Mou Hsiao,  
Department of Obstetrics and Gynecology, Far Eastern Memorial Hospital,  
21, Section 2, Nanya South Road, Banqiao District, New Taipei, Taiwan.  
E-mail: smhsiao2@gmail.com

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**How to cite this article:** Chen HH, Chou YH, Lin HH, Hsiao SM. Disastrous delayed postpartum hemorrhage after 3 days of Shenghua decoction treatment. *Tzu Chi Med* 2020; 32(3): 298-300.

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	DOI: 10.4103/tcmj.tcmj_192_19

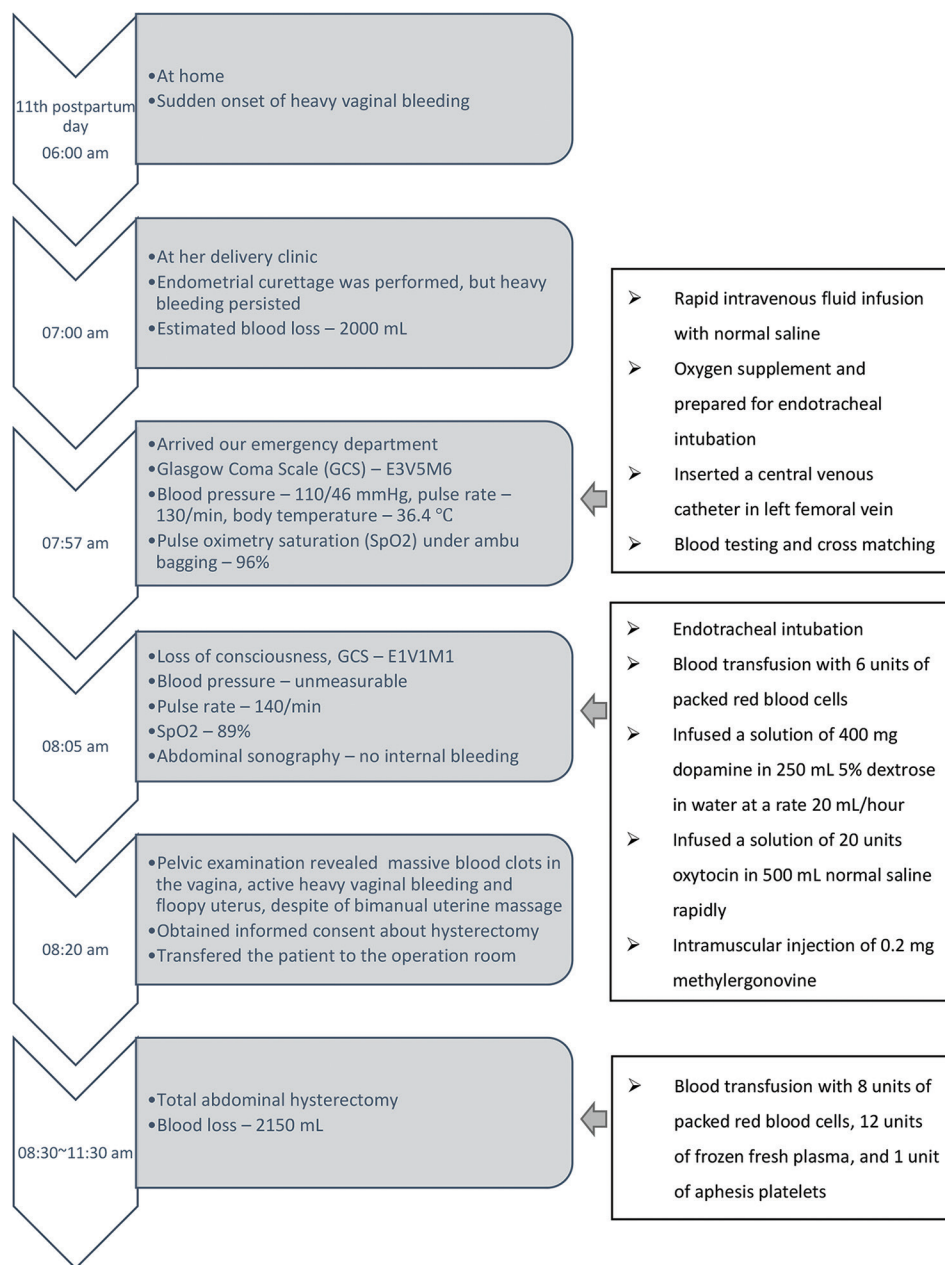


Figure 1: Detailed history of treatment for the patient with postpartum hemorrhage

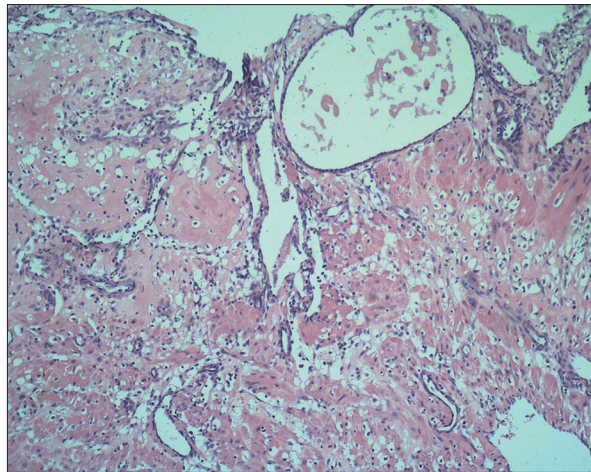
was not seen. The pathological finding was compatible with uterine atony. Her postoperative condition was uneventful, and she was discharged 1 week later.

## DISCUSSION

In our case, delayed postpartum hemorrhage occurred after 3 days of Shenghua decoction treatment. The ingredients of Shenghua decoction include *Angelicae Sinensis*, *Ligustici Rhizoma*, *Semen Persicae*, *Zingiberis Rhizoma*, and *Glycyrrhizae Radix* [2]. Among these ingredients, *Ligustici Rhizoma* has the function of improving blood circulation and eliminating blood stasis [3]. *Semen Persicae* has anti-thrombotic effects [2,4]. *Glycyrrhizae Radix* is a potent antispasmodic [2,5]. Therefore, the above ingredients in

Shenghua decoction could cause an increase in bleeding from abnormal involution of the placental site due to their anti-thrombotic and antispasmodic effects [2-5].

In Taiwan, many women believe that Shenghua decoction is helpful for lochial discharge and uterine recovery [6] and is helpful in health-related quality of life during the postpartum period [7]. Lee *et al.* reported that Shenghua decoction treatment was associated with less intrauterine fluid and lower uterine tension scores in cows [2]. Nonetheless, despite the use of Shenghua decoction increasing the myoelectric activity of rabbit uterine muscles during pregnancy [7], there are no data from the postpartum period. In addition, the use of Shenghua decoction was reported to be correlated with the presence of anteverted uterus (coefficient = 0.23) but not correlated with



**Figure 2:** The endometrium was hemorrhagic and uneven, whereas the myometrium was soft and congested (H and E,  $\times 200$ )

the diameter of the postpartum uterus and uterine cavity [8]. In addition, Shenghua decoction could decrease the contractility of the postpartum uterus in mice [9]. Taking together, there is little evidence that Shenghua decoction is helpful in uterine involution, but its use could decrease uterine contractility.

Further, Cui *et al.* reported that Shenghua decoction was associated with a lower incidence of retained placenta in cows [10]. However, most postpartum women do not have retained placenta; thus, the rationale for taking prolonged Shenghua decoction in postpartum women seems insufficient.

Although emergent total hysterectomy was performed in our patient due to her extremely unstable hemodynamic status, it is worth mentioning that intrauterine balloon tamponade, uterine compression sutures, or uterine vessel ligation might be used as initial attempts for heavy vaginal bleeding in women with unstable hemodynamic status.

## CONCLUSION

Disastrous delayed postpartum hemorrhage occurred in a woman following 3 days of Shenghua decoction treatment. Owing to limited objective data on prolonged treatment with Shenghua decoction, further research should be performed to investigate its role in postpartum uterine involution.

## Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initial will not be published, and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There is no conflicts of interest.

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