

# The Vaginal Approach in Treating Bleeding after Vaginal Hysterectomy: A Case Series

Jazlan Joosoph<sup>1</sup>

Han How Chuan<sup>2</sup>

<sup>1</sup>Division of Obstetrics & Gynaecology  
KK Women's and Children's Hospital

<sup>2</sup>Urogynaecology Unit, Urogynaecology Centre  
Head, Department of Gynae Subspecialties  
KK Women's and Children's Hospital

## Abstract:

**Introduction:** *The first vaginal hysterectomy was performed by Langenbeck in 1813. The superiority of hysterectomy by the vaginal route is unquestionable. Women who undergo vaginal hysterectomy experience significantly fewer complications than women who undergo abdominal hysterectomy. Bleeding after vaginal hysterectomy is a known complication associated with this procedure. Most cases require surgical intervention to secure haemostasis. Most reviews in the literature reported cases adopting either laparotomy or laparoscopic approach in arresting the haemorrhage.*

**Method:** *We present 3 cases of bleeding after vaginal hysterectomy whereby the vaginal approach was used in securing haemostasis.*

**Discussion:** *The vaginal approach is better accepted by the patient, as it results in no additional surgical wounds, short hospital stay and quick return to activities.*

**Conclusion:** *The vaginal approach to treat bleeding after vaginal hysterectomy is a viable option, which can be successfully performed.*

**Keywords:** Vaginal hysterectomy, Bleeding

## INTRODUCTION

The first vaginal hysterectomy was performed by Langenbeck in 1813. Hysterectomy by the vaginal route is associated with fewer complications as compared to the abdominal and laparoscopic approaches. However, bleeding can occur as a complication after a vaginal hysterectomy. Most bleeding will require surgical haemostasis.

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Correspondence to:

Dr Jazlan Joosoph

Division of Obstetrics & Gynaecology,  
K K Women's and Children's Hospital,  
100 Bukit Timah Road,  
Singapore 229899

## METHOD

We present 3 cases of bleeding after vaginal hysterectomy whereby the vaginal approach was successfully used in securing haemostasis.

### Case 1

Madam Y is a 57 year-old cleaner with 2 previous vaginal births. She is post-menopausal for 7 years and is not on any hormone replacement therapy. She presented with a 1-month history of a lump at the introitus associated with mild voiding difficulties. There was no complaint of urinary incontinence.

On clinical examination, Madam Y weighed 75.9 kg

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and her body mass index was 28.5 kg/m<sup>2</sup>. Vaginal examination revealed a grade 2 cystourethrocele, a grade 2 rectocele and second-degree uterine descent. There was no demonstrable stress urinary incontinence. Urodynamic studies with a ring pessary did not show occult genuine stress incontinence.

Vaginal hysterectomy, bilateral salpingo-oophorectomy and pelvic floor repair was performed. The surgery was uneventful with estimated blood loss ~ 100 mls. Haemostasis was secured and a vaginal pack was inserted.

Madam Y was found to be hypotensive at the recovery area in the operating theatre. A check on the haemoglobin level showed a sharp drop from 13.8 g/dl pre-operatively to 6.2 g/dl. She was immediately returned to the operating theatre for re-exploration vaginally.

Intra-operatively, an estimated 1.5 litres of blood clots was evacuated. There was an actively bleeding left ovarian pedicle and a haemostatic suture was applied to arrest haemorrhage. Haemostasis was successfully achieved and a vaginal pack was re-inserted.

Post-operatively, Madam Y recovered well after an overnight stay in the intensive care unit. She was given a total of 5 pints of blood for transfusion. Her haemoglobin level stabilised at 10.1 g/dl. She was discharged on the third post-operative day.

### Case 2

Madam N is a 49 year-old housewife with 2 previous vaginal births. She presented with a vaginal lump of 2 years' duration. There was no complaint of urinary incontinence.

On physical examination, Madam N weighed 48.7 kg with a body mass index of 20 kg/m<sup>2</sup>. Clinically there was a grade 3 cystourethrocele, a grade 2 rectocele and second-degree uterine descent. The erect stress test was negative. Urodynamic studies with a ring pessary did not reveal occult genuine stress incontinence.

Vaginal hysterectomy, bilateral salpingo-oophorectomy and pelvic floor repair was performed. The surgery proceeded uneventfully with blood loss estimated to be about 100 mls. A vaginal pack was inserted at the end of the surgery. She returned to the general ward after the surgery.

About 3 hours later, she was found to be hypotensive with a blood pressure of 60 / 40 mmHg and a pulse

rate of 82 beats per minute. She was found to be pale. There was no active blood loss noted vaginally. She was fluid resuscitated. Her haemoglobin level dropped from a pre-operative level of 14.2 g/dl to 7.3 g/dl.

She was returned to the operating theatre for vaginal re-exploration. Intra-operatively, about 1.5 litres of blood clots was evacuated from the peritoneal cavity. A bleeding left infundibulopelvic pedicle was noted and it was clamped and ligated. Haemostasis was successfully secured.

Post-operatively, Madam N recovered well after an overnight stay in the intensive care unit. Her haemoglobin level returned to 11.2 g/dl after transfusion of 5 pints of blood. She was discharged on the third post-operative day.

### Case 3

Madam W is a 45 year-old housewife with 1 previous vaginal birth and 1 caesarean section. She presented with symptoms of stress urinary incontinence and menorrhagia.

Madam W weighed 54.1 kg with a body mass index of 23.7 kg/m<sup>2</sup>. Clinically, there was a grade 2 cystourethrocele and first-degree uterovaginal prolapse. The erect stress test was positive.

A pelvic ultrasound showed a 5.6 cm anterior wall fibroid. Urodynamic studies showed a stable bladder.

Vaginal hysterectomy, anterior colporrhaphy and tension-free vaginal tape were performed. The surgery was uneventful. A vaginal pack was inserted.

Three hours after she returned to the ward, Madam W was noted to be hypotensive with a blood pressure of 85 / 60 mmHg and a pulse rate of 80 beats per minute. There was no active bleeding vaginally and the abdomen was soft and not distended. She was given fluid challenge and transferred to the high dependency ward for closer monitoring.

On review about 1 hour later, the blood pressure remained low at 95 / 45 mmHg and the pulse rate was 90 beats per minute. The abdomen was notably distended and there was significant conjunctival pallor. The vaginal pack was removed and there was no vaginal bleeding noted. Vaginal and rectal examinations did not reveal any haematoma. The clinical suspicion then was a possible intra-abdominal haemorrhage. Madam W was given 2 pints of blood for transfusion, as the haemoglobin level was 6.1 g/dl, a drop from the pre-operative level of 10.2 d/dl.

On review again about 3 hours later, Madam W was still haemodynamically unstable with a blood pressure of 92 / 50 mmHg and pulse rate of 100 beats per minute. There was increasing abdominal girth. After completion of 2 pints of blood, a check haemoglobin level was still low at 7.5 g/dL.

She returned to operating theatre for vaginal re-exploration. An estimated 1.9 litres of blood clots were evacuated. The bleeding pedicle was noted on the right pelvic sidewall. The pedicle was ligated and haemostasis was secured.

Post-operatively, Madam W recovered well. Her haemodynamic status stabilised and haemoglobin returned to a satisfactory level of 8.8 g/dL and the coagulation profile remained normal. She had a total of 4 pints of blood for transfusion along with 2 units of fresh frozen plasma and 1 unit of platelet. She was discharged on the third post-operative day.

### Discussion

Vaginal hysterectomy is in many ways superior compared to abdominal and laparoscopic hysterectomy. Women who underwent vaginal hysterectomy experience fewer complications.<sup>(1)</sup> Vaginal hysterectomy is associated with less febrile morbidity, bleeding requiring transfusion and convalescence than abdominal hysterectomy.<sup>(2)(3)</sup> Women who undergo vaginal hysterectomy are generally discharged earlier and are able to return to their normal activities much sooner.<sup>(4)(5)</sup>

Bleeding is an established complication following vaginal hysterectomy and patients should be made aware of it.<sup>(6)</sup> The frequency of bleeding ranges from 30 to 98%.<sup>(7)</sup> The most common site of bleeding is

usually the vaginal vault.

Haemostasis can be achieved abdominally, vaginally or laparoscopically. The abdominal route is traditional the method of choice. However, the recovery time will be significantly prolonged due to the added abdominal incision resulting in longer hospital stay, higher hospital charges, prolonged convalescence and patient's dissatisfaction.<sup>(8)</sup>

The laparoscopic method is sometimes favoured. It is successful in the majority of patients and is recommended if the source of bleeding cannot be identified clearly by vaginal examination and/or if an intra-abdominal bleeding source is suspected.<sup>(9)(10)</sup> Haemostasis can be easily achieved at laparoscopic surgery because of magnification, close inspection, routine use of suction irrigation and bipolar electrocoagulation.<sup>(7)</sup> Some authorities even recommend routine laparoscopy at the completion of vaginal hysterectomy.<sup>(7)</sup>

The vaginal route where possible, will provide the best method of achieving haemostasis. Bleeding is arrested without any additional surgical wounds as compared to abdominal and laparoscopic methods. Patients still enjoy a short hospital stay, faster recovery and faster return to normal activities. As such greater patient acceptance and satisfaction can be expected.

### Conclusion

We have illustrated 3 cases whereby bleeding following vaginal hysterectomy can be successfully treated by the vaginal route. We recommend all bleeding patients after vaginal hysterectomy to undergo vaginal exploration to secure haemostasis before choosing alternative routes of treatment.

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