

Case report

Absorbable Gelatine Sponge in the Conservative Surgical Management of Severe Uncontrolled Uterine Bleeding following Manual Vacuum Aspiration

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Abstract :

Manual vacuum aspiration is the most frequently used surgical method to perform first- trimester abortion with minimum complication. Severe uterine bleeding following this procedure is rare usually due to incomplete evacuation. But rarely it may occur in spite of an empty uterine cavity which is very difficult to treat especially when the uterus is to be preserved. A 35 years old multiparous woman was referred to the emergency unit of the obstetrics & gynaecology department of Ad-din hospital, Kushtia with a history of severe per vaginal bleeding following manual vacuum aspiration 7 days back. She was found severely anaemic and was almost in shock. Ultrasonography report revealed no retained product of conception in the uterine cavity. Then blood transfusion, tranexamic acid, antibiotics and also progesterone were given. Gradually she was settled and per vaginal bleeding was stopped completely. But after one week severe haemorrhage recurred. Then we decide to perform hysterectomy to save the life of the patient. As she & her husband requested to preserve uterus somehow if possible. So we think about conservative surgery. We put an absorbable haemostatic gelatine sponge inside the uterine cavity under anaesthesia with keeping the arrangement for hysterectomy. Fortunately, bleeding was stopped within few minutes. During follow-up period of 6 months she was completely alright. Though data of long-term effects are unavailable, it is an excellent way to treat uncontrolled, severe uterine bleeding of unknown origin.

Keywords: Absorbable Haemostatic Gelatine Sponge, Manual Vacuum Aspiration (MVA),

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Introduction

Worldwide abortions complicate 30% to 40% of pregnancy¹. Among this, 10% to 30%² are induced abortion which varies from country to country. Manual vacuum aspiration (MVA) is the safest and 98% effective surgical method of induced abortion³⁻⁵. Very infrequently some complications occur as infection (0.5%) injury to the cervix, excessive per vaginal bleeding, failure to evacuate completely⁶, perforation of the uterus (0.3%)^{7,8}. Excessive uterine haemorrhage is usually due to incomplete MVA. Rarely may it happen in spite of complete evacuation which is usually stopped by medical treatment. When medical treatment failed to stop severe

bleeding then hysterectomy usually performed as a life saving procedure. Topical use of absorbable haemostatic gelatine sponge inside the uterine cavity is an excellent conservative surgery to avoid hysterectomy. In this case report, such type of procedure was applied to a patient in the obstetrics & gynaecology department of Ad-din hospital, Kushtia. It is relatively a newer & uncommon technique.

Case Report

A 35 years old woman was referred to the emergency unit of the obstetrics & gynaecology department of Ad-din hospital, Kushtia with continuous & profuse per vaginal bleeding for 6 hours. She had history of taking abortifacient drugs during 10 weeks of gestation but it was failed. So manual vacuum aspiration was performed in a local clinic 7 days back. She is a mother of 2 daughters born by caesarean section & age of her last child was 7 years.

On examination, she was almost in shock, severely pale, pulse rate was 116 per minute,

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blood pressure was 80/40 mm of Hg. Per abdominal examination revealed no abnormalities. Excessive per vaginal bleeding was noticed. Regarding investigations haemoglobin percentage was 6 gm /dl , tests for coagulation disorder were normal, other tests as liver & renal function tests were normal. Ultrasonography report revealed no retained product of conception. So medical treatment was given including blood transfusion, Tranexamic acid, antibiotics, also progesterone. Gradually her condition was improved.

After 7 days same problem has recurred. We repeat sonography which was normal. Then we counselled her husband and her attendants for hysterectomy to save her life. But they requested to preserve the uterus if possible. In operation theatre we think to apply absorbable haemostatic gelatine sponge (Figure-1) inside the uterine cavity under general anaesthesia with keeping ready everything for hysterectomy. The gel foam was cut into small pieces for the convenience to enter through partially opened os of the uterus. Thereafter we wait for few minutes. Gradually bleeding was reduced. Then with the consent of the attendants we wanted to keep her in follow-up and postponed hysterectomy.

Fortunately, there was no recurrence of per vaginal bleeding during her follow-up period of 6 months.



Figure 1: Absorbable haemostatic gelatine sponge.

Discussion:

Topical use of absorbable haemostatic gelatine sponge is an excellent cost-effective technique to stop uncontrolled, severe uterine bleeding of unknown cause. It is a very simple and easy procedure.

In obstetrics and gynaecologic surgery its use is limited; commonly used in neuro and hepatobiliary surgery. Where there is no substitute for a meticulous surgical technique to stop bleeding and giving suture or electrocautery are unsafe it is a very effective way to stop bleeding^{9,10}.

Haemostatic gel foam is a sterile sponge used dry or saturated with sterile sodium chloride solution, used to control capillary, venous and arteriolar bleeding. It is prepared from purified skin gelatine, capable of absorbing up to 45 times its weight of the whole blood¹¹. It forms a matrix at the site of bleeding which activates extrinsic coagulation cascade and serves as a scaffold for clot formation¹². It liquefies within one week and completely within 4-6 weeks¹³⁻¹⁶. Adverse effects include infection, foreign body reaction¹⁷⁻¹⁹, granuloma formation, adhesion, allergic reaction, embolization. The absolute contraindication is severe coagulopathy²⁰. Regarding efficacy, high quality data are not available.

Conclusion

Because use of topical hemostatic agents may increase the risk of complications, it should not be used for routine prophylaxis of postoperative bleeding and in case of less severe haemorrhage it is not recommended routinely. As data of long term complications are unavailable, recommendation of its use in the obstetrics & gynaecologic surgery largely based on findings extrapolated from studies on the use of these agents in non-obstetrics & gynaecologic surgeries.

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