

UNCONVENTIONAL USE OF BAKRI BALLOON LACERATED VAGINAL VARICES

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INTRODUCTION

Complications due to vaginal varicosities are seen in some pregnancies. Majority are asymptomatic and others present with complaints of vaginal discomfort or pain.

Bakri balloon is widely used to achieve haemostasis in uterine bleeding. Only 3 cases have been reported in the literature so far where Bakri balloon has been used for vaginal lacerations. This case will be the 4th reported case where Bakri balloon was used to arrest severe postpartum haemorrhage due to vaginal varicosities.

CASE HISTORY

A primi mother of 23 years of age, with an uncomplicated antenatal period, presented with spontaneous onset of labour at 38 weeks of gestation. Labour was uneventful, and she delivered a healthy baby of 3.1 kg. She was given a small episiotomy which was sutured, and haemostasis was achieved.

One hour after delivery, she complained of very severe pain in her vulval area and back. On inspection, a tear was noted in the 'bluish' posterior wall of the vagina, resembling a bucket handle tear.

While she was closely monitored, the impending hypovolaemic shock was detected. Immediate resuscitation with IV fluids was commenced, and she was transferred to the theatre. The examination was done under general anaesthesia. Vaginal varices were noted extending up to the posterior fornix from the rear vaginal wall. The bluish discolouration was, in fact, the large varices. What appeared as a tear previously was, in fact, tears on the walls of the large varices.

Simple measures like haemostatic suturing or vaginal gauze packing failed as the varicosities started to create retrograde clots along the veins, which caused a further spontaneous rupture of veins with severe bleeding and pain. Conventional application of pressure or ligation of veins were not enough to salvage the bleeding. Vascular MRI was done and this suggested the bleeding varicosities were superficial and there were no involvement of deep veins. Hence, interventional radiology was futile in this situation. The use of Bakri balloon was a spur of the moment idea that saved the patient's life.

OUTCOME

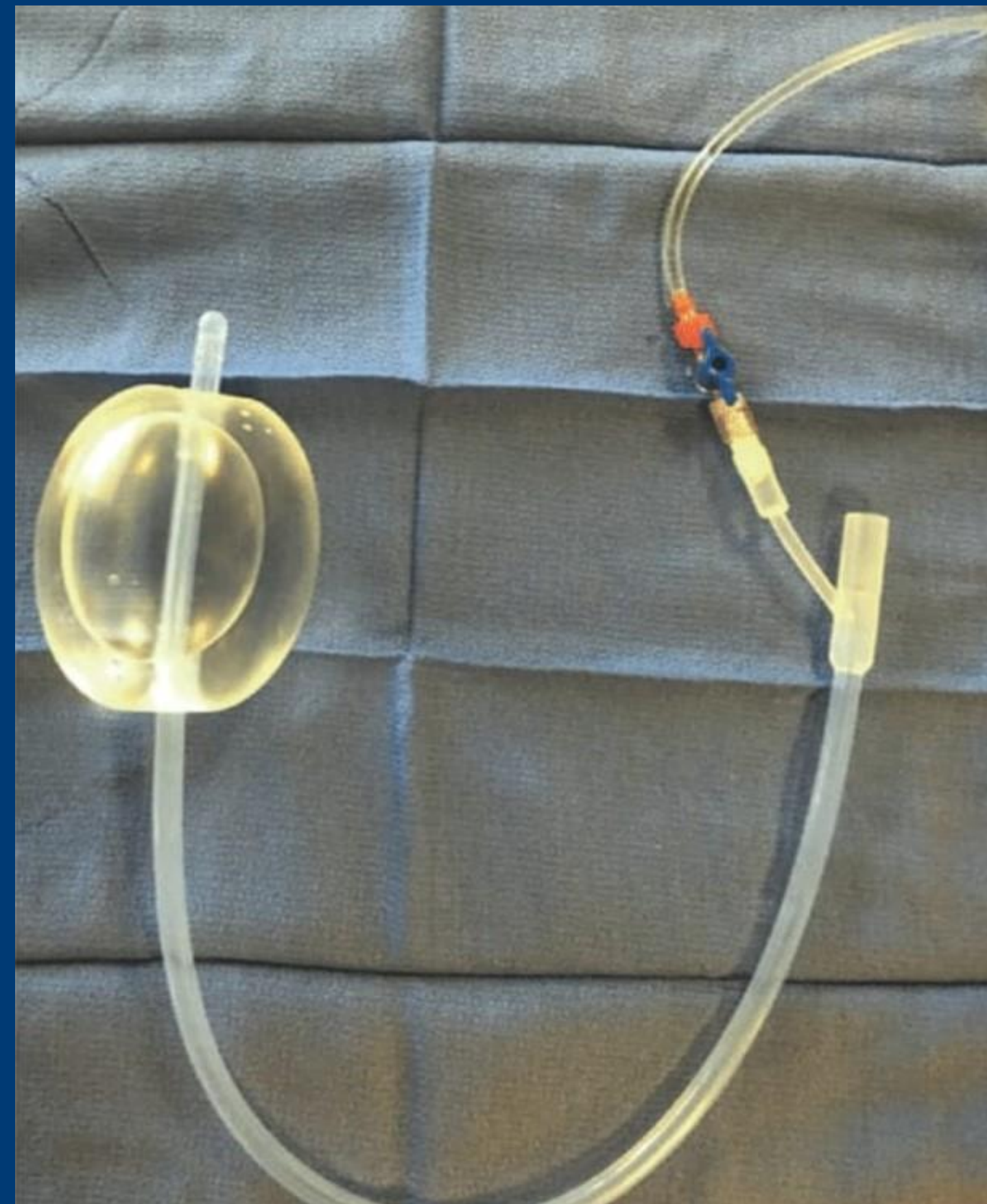
In our case we titrated the balloon volume with the patient's tolerance of pain due to pressure in the vagina and 270ml of normal saline was left in the balloon. The standard amount of fluid was causing unbearable pain due to pressure. A vaginal pack was applied to keep the balloon in place.

In CT, it was confirmed that the balloon's tip was just inside the cervix, and the balloon neatly tucked inside the vagina and occupying the whole length of it.

The patient remained stable; no further complaints of pain or bleeding were noted with the Bakri Balloon in-situ. After 12 hours of insertion of the Bakri balloon, we followed a step wise deflation reducing 50ml every 6 hours while observing for bleeding.

She received three units of blood and two units of Fresh Frozen Plasma in the ICU. Her lowest Hb was 4.8mg/dl, and on discharge, it was 8 mg/dl. She went home the following day.

Some reports have indicated cervical/vaginal necrosis and stress urinary incontinence following balloon use in the vagina. Our patient didn't report any of this even after six months of delivery.



Bakri Balloon

DISCUSSION

Vaginal varicosities can cause severe post partum haemorrhage. When severe vaginal varicosities are detected antenatally, some literature suggests elective caesarean section. This patient had no signs or symptoms suggestive of vaginal varicosities antenatally.

In principle, pressure can be used in the vagina to arrest bleeding in situations like multiple lacerations or a case like ours with numerous variceal bleeding. Though Bakri is not designed to be used in the vagina, it can be used very effectively. Placing the tip just inside the cervix and the balloon tightly fitting in the full vaginal length worked perfectly.

Bakri balloon tamponade achieved successful haemostasis when all other conventional methods failed.

There are only 3 reports of the use of Bakri balloon in vaginal lacerations in the literature. Complications of necrosis and incontinence could be avoided if used cautiously as found in other cases. The following factors are crucial in using Bakri balloon as tamponade in vagina - patient's pain score, inflation pressure, impeccable placement followed by timely deflation.

CONCLUSIONS

Our case is likely the benchmark for using Bakri as an effective method of vaginal tamponade. More similar usage is needed to standardize guidelines for the unconventional use of Bakri balloon.

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